JUE-250

INMARSAT FleetBroadband FB250
Maritime Satellite Communication Terminal

OPERATION MANUAL

JRC Japan Radio Co., Ltd.

ABOUT YOUR SAFETY

CAUTIONS AGAINST HIGH VOLTAGE

Radio and radar devices are operated by high voltages of anywhere from a few hundred volts up to many hundreds of thousands of volts. Although there is no danger with normal use, it is very dangerous if contact is made with the internal parts of these devices. (Only specialists should attempt any maintenance, troubleshooting, or adjustments.)
There is a very high risk of death by even a few thousand volts, in some cases you can be fatally electrocuted by just a few hundred volts. To circumvent accidents, you should avoid contact with the internal parts of these devices at all costs. If contact is inevitable as in the case of emergency, you must switch off the devices and ground a terminal in order to discharge the capacitors. After making certain that all the electricity is discharged, only then can you insert your hand into the device. Wearing cotton gloves and putting your free hand in your pocket, in order not to use both hands simultaneously, is also a very good method of shock prevention. Quite often, an injury occurs by secondary factors, therefore it is necessary to choose a sturdy and level working surface. If someone is electrocuted it is necessary to thoroughly disinfect the affected area and seek medical attention as soon as possible.

CAUTIONS CONCERNING TREATMENT OF ELECTROCUTION VICTIMS

When you find an electrocution victim, you must first switch off the machinery and ground all circuits. If you are unable to cut off the machinery, move the victim away from it using a non-conductive material such as dry boards or clothing.
When someone is electrocuted, and the electrical current reaches the breathing synapses of the central nervous system inside the brain, breathing stops. If the victim's condition is stable, he or she can be administered artificial respiration. An electrocution victim becomes very pale, and their pulse can be very weak or even stop, consequently losing consciousness and becoming stiff. Administration of first aid is critical in this situation.

FIRST AID

☆Note points for first aid

Unless there is impending danger leave the victim where he or she is, then begin artificial respiration. Once you begin artificial respiration, you must continue without losing rhythm.

(1) Make contacts with the victim cautiously, there is a risk that you may get electrocuted.

(2) Switch off the machinery and then move the victim away slowly if you must.

(3) Inform someone immediately (a hospital or doctor, dial emergency numbers, etc.).

(4) Lay the victim on his or her back and loosen any constructive clothing (a tie, or belt).

(5) (a) Check the victim's pulse.
(b) Check for a heartbeat by pressing your ear against the victim's chest.
(c) Check if the victim is breathing by putting the back of your hand or face near the victim's face.
(d) Check the pupils of the eyes.

(6) Open the victim's mouth and remove any artificial dentifrice, food or chewing gum. Leave the mouth opened and flatten the tongue with a towel or by putting something into the mouth to prevent the victim's tongue from obstructing the throat (If he or she is clenching their teeth and it is difficult to open the mouth, use a spoon or the like to pry open the mouth).

(7) Continually wipe the mouth to prevent the accumulation of saliva.

☆If the victim has a pulse but is not breathing

(1)Place the victim's head facing backward (place something under the neck like a pillow).

(2)Point the chin upward to widen the trachea.

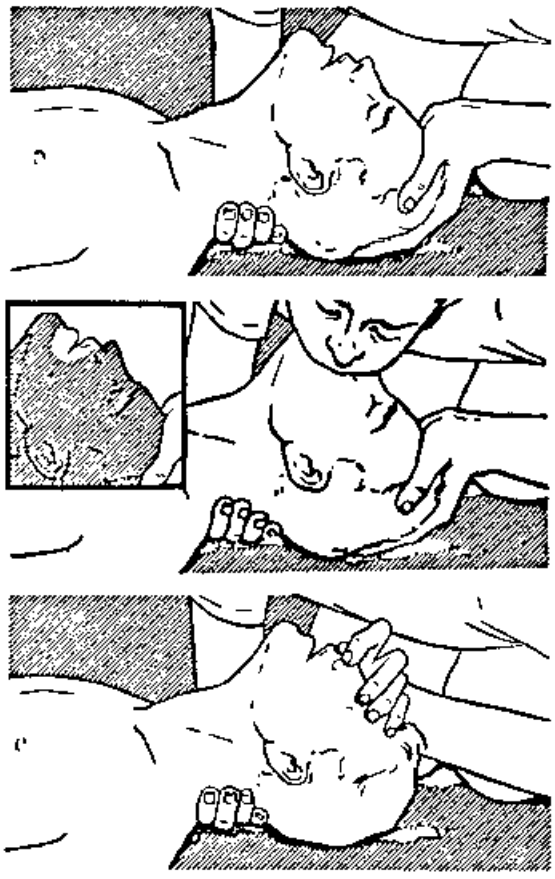
(3)Pinch the victim's nose, take a deep breath, then put your mouth over the victim's mouth and exhale completely, making sure that your mouth completely covers the victim's mouth. Then remove your mouth. Repeat this routine 10 to 15 times per minute (holding the nostrils).

(4)Pay attention to the victim to notice if he or she starts to breath. If breathing returns, stop resuscitation.

(5)If it is impossible to open the victim's mouth, put something like a plastic straw or vinyl tube into one of the nostrils then blow air in while covering the mouth and the other nostril.

(6)Occasionally, when the victim comes back to consciousness, they immediately try to stand up. Prevent this and keep them in a laying position. Give them something warm to drink and be sure that they rest (do not give them any alcohol).

Administering artificial respiration by raising the head.



1 Raise the back of head, and then place one hand on the forehead and place the other hand under the neck. **(1)** Most victims open their mouth when doing this, making "mouth to mouth" resuscitation easier.

2 Cover the victim's mouth by opening your mouth widely, then push your cheek against the victim's nose, **(2)** or pinch the victim's nose to prevent air from leaking out of it. **(3)**

3 Completely exhale into the lungs.

Exhale into the lungs until the chest is inflated.

You have to blow as rapidly as possible the first 10 times.

"Mouth to mouth" artificial respiration
Figure 1

☆If the victim has no pulse and is not breathing

If the victim has no pulse, his or her pupils are dilated, and if you cannot detect a heartbeat, the heart may have stopped; beginning artificial respiration is critical.

(1) Put both hands on the diaphragm, with hands on top it and keeping both arms straight each other (If your elbows are bent; you cannot push with as much power). Press the diaphragm with your body weight until the chest sinks about 2 cm (about 50 times per minute).

(2) If administering first aid when alone:
Perform the heart massage about 15 times then administer artificial respiration by blowing in twice. Repeat this routine.
If administering first aid with two people:
One person performs the heart massage 15 times, and the other person blows air in twice. Repeat this routine (Heart massage and "mouth to mouth" resuscitation used together).

(3) Constantly check the pupils and the pulse, if the pupils become normal and the pulse steadies, keep him in a laying position and give him something warm to drink, be sure that he rests (do not give him any alcohol). In any case you have to entrust any major decision making to a doctor. Having understanding people around is essential to the victim's recovery from the mental shock of electrocution.

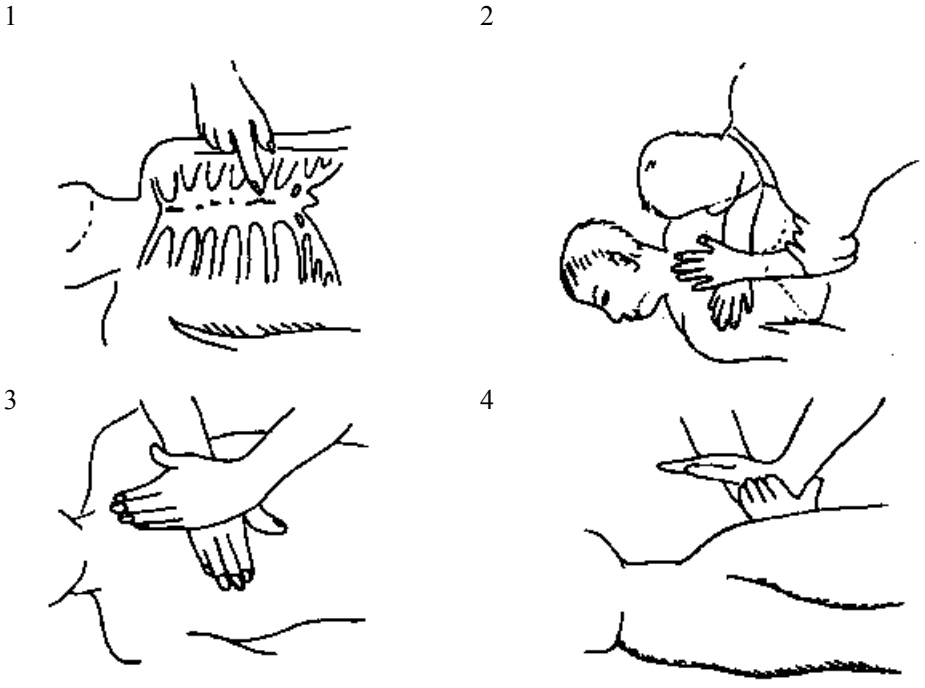


Figure 2 Heart massage in combination with artificial respiration.

PREFACE

Thank you for purchasing the JRC Inmarsat FleetBroadband Mobile Earth Station, the JUE-250.

The JUE-250 is an Inmarsat digital satellite communication terminal for Voice (4kbps Speech), and Audio (64kbps 3.1kHz Audio), maximum 284kbps Standard IP service, 32kbps, 64kbps, or 128kbps Streaming IP service, and Short Messaging Service (SMS).

The JUE-250 is packaged and shipped under strict quality control with inspection criteria to deliver the equipment with highest quality, performance, and reliability needed to meet our customer's requirements and satisfaction.

JRC believes that you will use this equipment satisfactorily for a long time.

- Please read this manual carefully and carry out proper operation.
- Please do not lose this useful manual, as you will have to refer to it from time to time.

BEFORE OPERATION

(1) About this operation manual

Before operating this equipment, read the manual carefully to ensure correct operation.
This book is useful for troubleshooting, too.

(2) Concerning the symbols

This manual uses the following symbols to explain the correct operation and to help prevent injury or damage to property.
The symbols and descriptions are as follows. Understand them before proceeding with this manual.

⚠ DANGER	Indicates danger that, if ignored, will result in serious injury or even death.
⚠ WARNING	Indicates warning that, if ignored, may result in serious injury or even death.
⚠ CAUTION	Indicates caution that, if ignored, may result in injury or damage to property.

Examples of symbols

The △symbol indicates caution (including DANGER and WARNING).
The illustration inside the △symbol specifies the content of the caution more accurately. (This example warns of possible electrical shock.)

The ⃠ symbol indicates that performing an action is prohibited.
The illustration inside the ⃠ symbol specifies the content of the prohibited operation. (In this example disassembly is prohibited.)

The ● symbol indicates operations that must be performed.
The illustration inside the ● symbol specifies obligatory instructions. (In this example unplugging is obligatory.)

(3) Concerning warning labels

Warning labels are posted on the equipment.
Do not remove, damage or modify.

* Windows Internet Explorer is a registered trademark of Microsoft Corporation.

Netscape Navigator is a registered trademark of Netscape Communications Corporation.

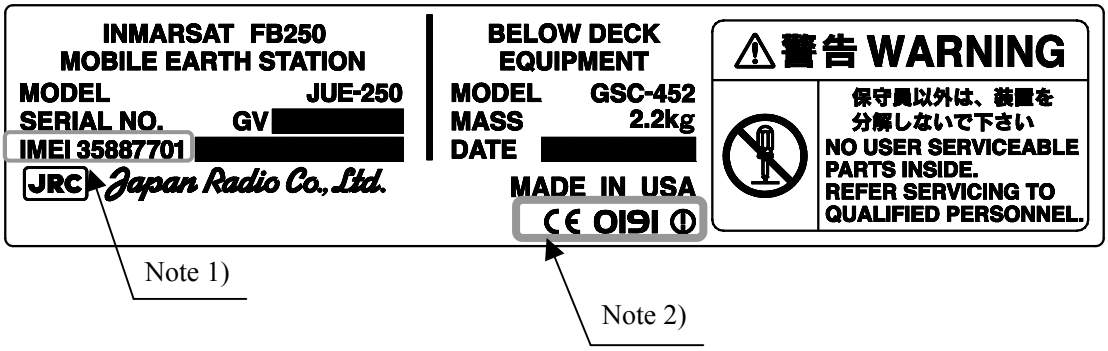
About Warning Label

Below mentioned warning labels are put on the JUE-250, ADE and BDE.

Do not take off, destroy, or modify these labels.

<Warning Label of ADE >

<Warning Label of BDE >



Notes

1) IMEI 35887701

International Mobile Equipment Identity (IMEI) is an unique number used to identify an individual mobile equipment to a GSM or UMTS network.

2) CE 0191 ①

Attestation number which means safe, high-quality product and suits EU instruction (Free circulation was permitted in the EU signatory).

BEFORE USING

- JRC is indemnified for any damages from incorrect operation, malfunction, and other troubles except as outlined in the product warranty and by limitation of law.

- Some functions depend on the hardware and software version of your terminal equipment connected with your JUE-250. Confirm your terminal equipment, hardware, and software versions before contacting the purchasing dealer, JRC agent, or one of the JRC branches.

- Your communication data are transmitted via the Inmarsat systems, therefore, there is a possibility that some errors may occur.

We strongly recommend important data be backed up to ensure safety and protection from loss. Usually, digital scrambling of the Inmarsat system protects your communication data privacy.

However we caution you to understand that your communication data might be intercepted by special technology and unauthorized access to the communication theory.

There are some additional and optional functions of the JUE-250 that is released in the near future evaluation.

- Specifications of the JUE-250 and its accessories may change without notice, for improvement.

- Some functions may not be supported by a product version. Please contact JRC for more information.

DURING OPERATION

⚠ DANGER

Do not touch any internal parts with your hands or tools.
It may cause fire, electrical shock or malfunction.

DURING OPERATION

⚠ WARNING

Please do not bring the power supply code close to the heat apparatus. The coating of the code may relieved, and it causes a fire and the electric shock.

Do not approach the ADE while transmitting, It transmits microwave and strong microwave may cause injury.

If an external matter, such as metal fragments, water, liquid, etc., infringes into your JUE-250, turn off the power and contact the dealer or agent you purchased the equipment from or one of our JRC Branches. Continuous operation may cause fire, electrical shock or malfunction.

Install the JUE-250 correctly in accordance with the installation manual.

Inappropriate installation may cause incorrect operation; fire, electrical shock, or malfunction. The JUE-250 should be installed by the trained technician or engineer. The installation should be requested to the purchasing dealer, JRC agent or one of the JRC branches.

Lay ADE-BDE coaxial cable correctly in accordance with the Installation manual. (Especially waterproof should be treated correctly in accordance with the installation manual.) Pay particular attention to waterproof following the instruction of installation manual. Inappropriate installation may cause incorrect operation, fire, electric shock or malfunction. The installation has to be carried out under the supervision of trained technician or field engineer.

Use the specified power supply voltage only （+19VDC to +31VDC）, otherwise trouble, fire, or electric shock or malfunction may occur.

Do not troubleshoot or repair the internal equipment of the JUE-250 by yourself. Any electrical work by any person other than our trained maintenance staff may cause fire or abnormal operation of this equipment or electrical shock for you. This equipment meets the technical standard of the Ministry of Internal affairs and Communications.

⚠ WARNING

Do not troubleshoot or repair the internal equipment of the JUE-250 by yourself. Any electrical work by any person other than our trained maintenance staff may cause fire or abnormal operation of this equipment or electrical shock for you. This equipment meets the technical standard of the Ministry of Internal affairs and Communications.

Do not remove, destroy, or modify warning labels.

DURING OPERATION

⚠ CAUTION

Before using, read this operation manual.
Incorrect operation may cause improper working operation or malfunction.

<<Above Deck Equipment>>

Do not deliver mechanical shock and/or force, because each unit of your ADE is a precision instrument. Unwanted shock and force may cause malfunction.

Do not paint the radome. Painting of the radome may cause a decrease of the communication quality.

<<Below Deck Equipment>>

Do not turn off the power switch of BDE except the case that maintenance or checking is required.
It may cause malfunction of the antenna drive and may cause troubles.

Do not turn off the POWER switch during sailing. Malfunction of the antenna drive and other troubles may results.

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1. Inmarsat Service systems

1.1 Outline

1.1.1 Coverage area

The Inmarsat Satellites cover the earth's surface except at the high latitude areas near the North Pole and the South Pole.

Inmarsat terminals are available for any type of vehicle or ship, and are capable of communicating day and night.

The Inmarsat coverage map displays the area of three satellite regions.

Atlantic Ocean Region: AOR

Pacific Ocean Region: POR*1

Indian Ocean Region: IOR

*1 Launching of the satellite is scheduled at 1st quarter of 2008.

A geostationary satellite is placed on each Ocean Region (excluded spare satellites).

The adjacent Ocean Regions have overlapped area of satellite regions. Suitable Ocean Region (satellite region) is automatically selected when JUE-250 positions in overlapped area.

Overlapped area

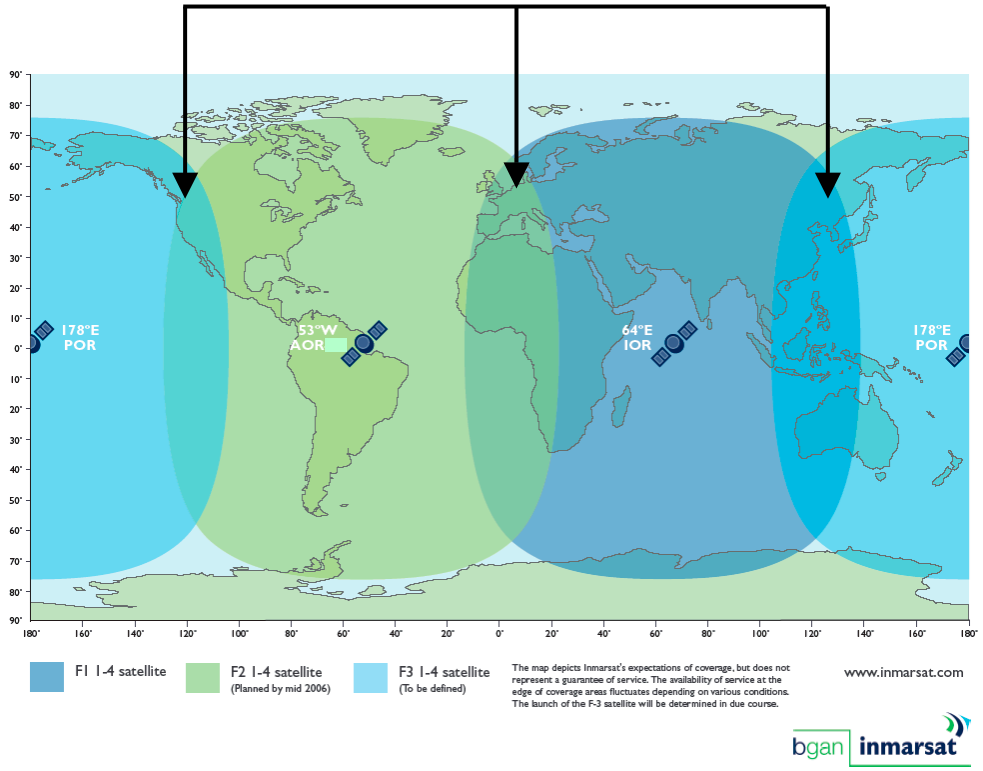

178°E
POR
53°W
AOR
64°E
IOR
178°E
POR
F1 I-4 satellite
F2 I-4 satellite
(Planned by mid 2006)
F3 I-4 satellite
(To be defined)
The map depicts Inmarsat's expectations of coverage, but does not represent a guarantee of service. The availability of service at the edge of coverage areas fluctuates depending on various conditions. The launch of the F-3 satellite will be determined in due course.
www.inmarsat.com
bgan inmarsat

Fig.1.1.1 The coverage areas of Ocean Region

1.1.2 The Inmarsat FleetBroadband Service

The Inmarsat network system consists of NCS, NOC, SCC, TT&C, and SAS.
Functions of each facility are as follows:

1) Network Coordination Station (NCS)

The NCS is designed for each Inmarsat service (i.e. Inmarsat-A, B, C) in each ocean region, which manages and coordinates the traffic in the region. The NCS assigns communication channels between the Mobile Earth Stations (MES) and Satellite Access Station (SAS).

2) Network Operation Center (NOC)

The NOC located at the INMARSAT headquarters in London U.K., coordinates communication lines of the network 24 hours a day, 365 days a year. The NOC maintains contact via dedicated satellite and terrestrial links with the NCSs and SASs in all Ocean regions.

The NOC performs the following:

- Coordination with the Satellite Control Center (SCC) for operation of satellites.
- Coordination with NCS and/or SAS for system operation.
- Collection of any status data in operation .
- Coordination of any test of satellite's performance.

3) Satellite Control Center (SCC)

The SCC controls the positioning of the satellites above the equator.

4) Tracking Telemetry and Control Center (TT&C)

The TT&C supplies data on the status of the Inmarsat satellites to SCC.

5) Satellite Access Station (SAS)

The SASs located in Fucino (Italy) and Burum (Holland), which are the gateway systems operating inter-working with public network (including telephone and Internet).

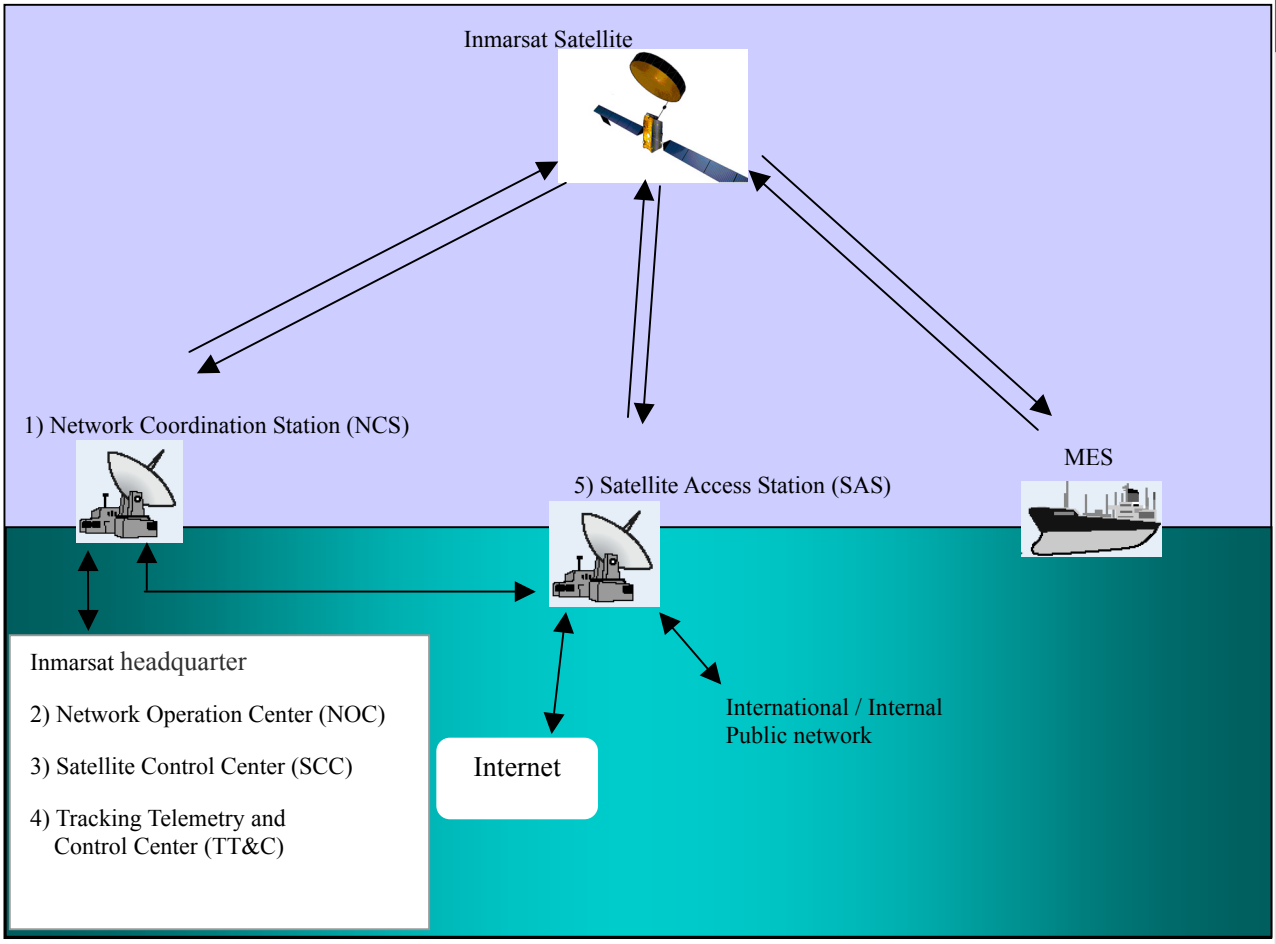


Fig.1.1.2 The Inmarsat FleetBroadband service Network

1.2 The Inmarsat FleetBroadband FB250 services explanations

Inmarsat FleetBroadband FB250 provides service shown below.

Packet Switched service (PS), Circuit Switched service (CS), and Short Messaging Service (SMS) can be used simultaneously.

Packet switched service (PS)

Standard IP	• **Internet and intranet access at speed up to 284kbps over a shared channel.** • **Charged by data amount**
Streaming IP	• **Internet and intranet access at guaranteed data rates on demand up to 128kbps (32,64, and 128kbps)** • **Charged by connection time.**

Circuit switched service (CS)

4kbps Voice	● **Low cost voice service equal to Inmarsat mini-M voice** ● **Charged by connection time**
64kbps 3.1kHz Audio	● **High quality voice service to use FAX and analogue modem.** ● **Charged by connection time**

Short Message Service (SMS)

Short Message Service	● **Send and receive text messages up to 160 characters.** ● **Charged by message.**

1.3 Important reminder for using JUE-250

Note

- **64kbps 3.1kHz Audio service is not available when antenna elevation angle (EL) value is less than 20 degrees.**
- **Communication failure due to MCA wireless system interference might be occured at the coast of Japan urban area.**
- **128K Streaming IP service and CS service cannot be used in the same time.**

2. Introduction of the JUE-250

2.1 Outline

The JRC JUE-250 is a FleetBroadband FB250 digital satellite communication system that meets the latest Inmarsat FleetBroadband FB250 SDM. JUE-250 is designed for easy operation and installation due to the lightweight Above Deck Equipment (ADE) and compact Below Deck Equipment (BDE), equipped with simple to operate telephone, FAX, IP services.

2.2 Features

Meeting the latest FleetBroadband SDM

The JUE-250 meets the latest Inmarsat FleetBroadband FB250 technical requirements (SDM) and is a suitable solution for satellite communications equipment for any type of vessel, navigating the world's oceans.

High quality and low communication cost

The JUE-250 provides following services using Broadband Global Area Network (BGAN) offered from Inmarsat.

-Low cost global voice service : 4kbps Voice

-G3FAX and legacy analogue modem service using 64kbps 3.1kHz Audio service

-Standard IP service (maximum speed is 284kbps)

-Streaming IP service (32k, 64k, and 128kbps)

-SMS (maximum number of characters are 160)

Stylish, Light weight, Space-saving, and Gyro-less

The JUE-250 can be installed on vessels of all sizes due to the stylish, compact and lightweight design of the ADE. The adoption of an active, Gyro-less three-axis antenna structure, makes this unit a perfect fit for small vessels.

With the use of a single coaxial cable as the control line between the ADE and BDE the installation of the JUE-250 is simple and easy.

The Rewindless antenna produces uninterrupted communication during course change.

Adaptive to various networks

The JUE-250 has multiple Interfaces including Ethernet, Audio, 2 wire (TEL1/2), USB, and Handset as standard equipment. An output port for WRF (Wide-band Radio Frequency) is also provided.

Self-diagnosis system

The built-in self-diagnosis system continually monitors the status of the JUE-250 and indicates the warning if an error is detected.

2.3 Cable connection system diagram and components List

2.3.1 Cable connection system diagram

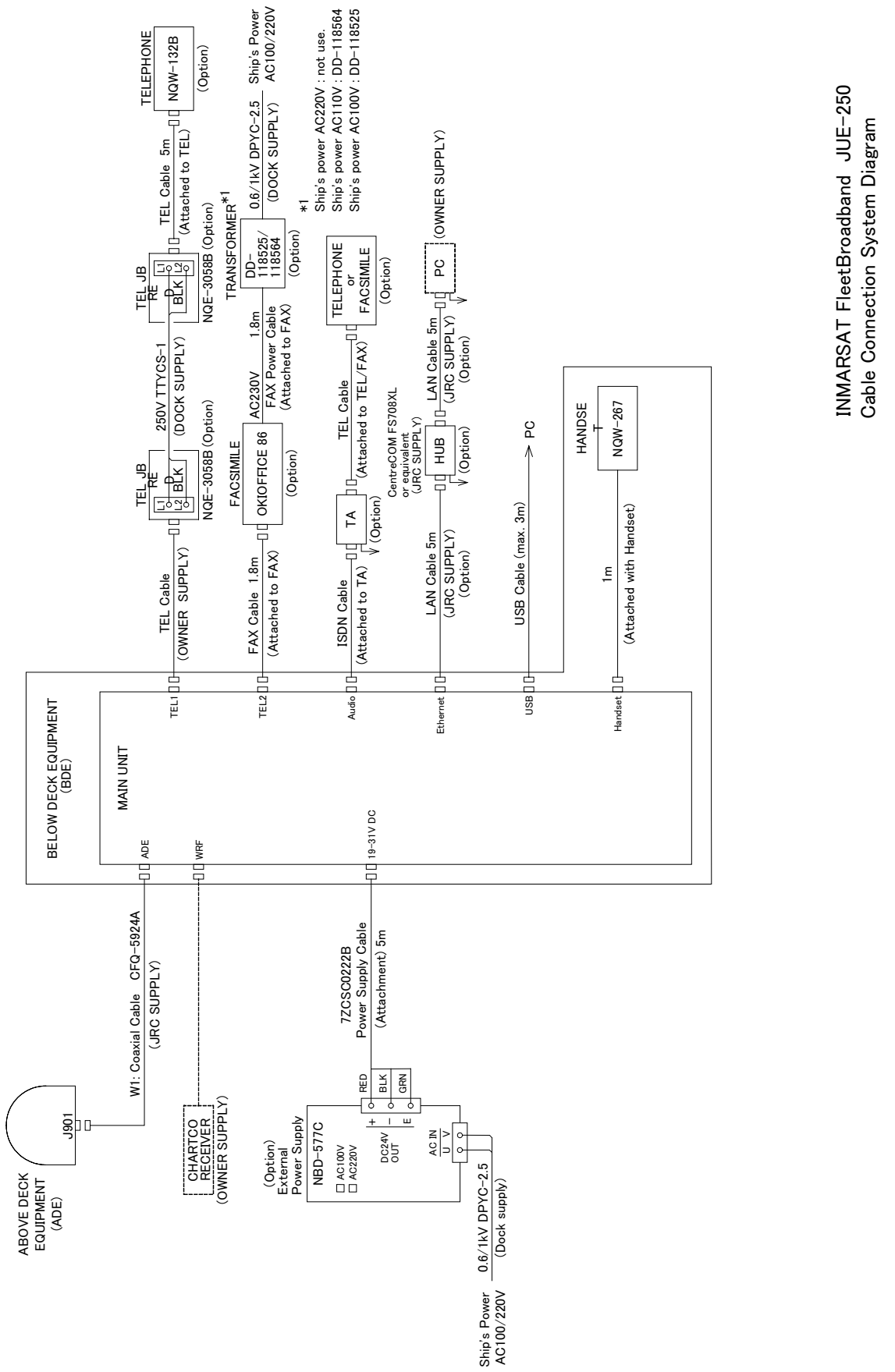


Fig. 2.3.1 Cable connection system diagram

2.3.2 Components list

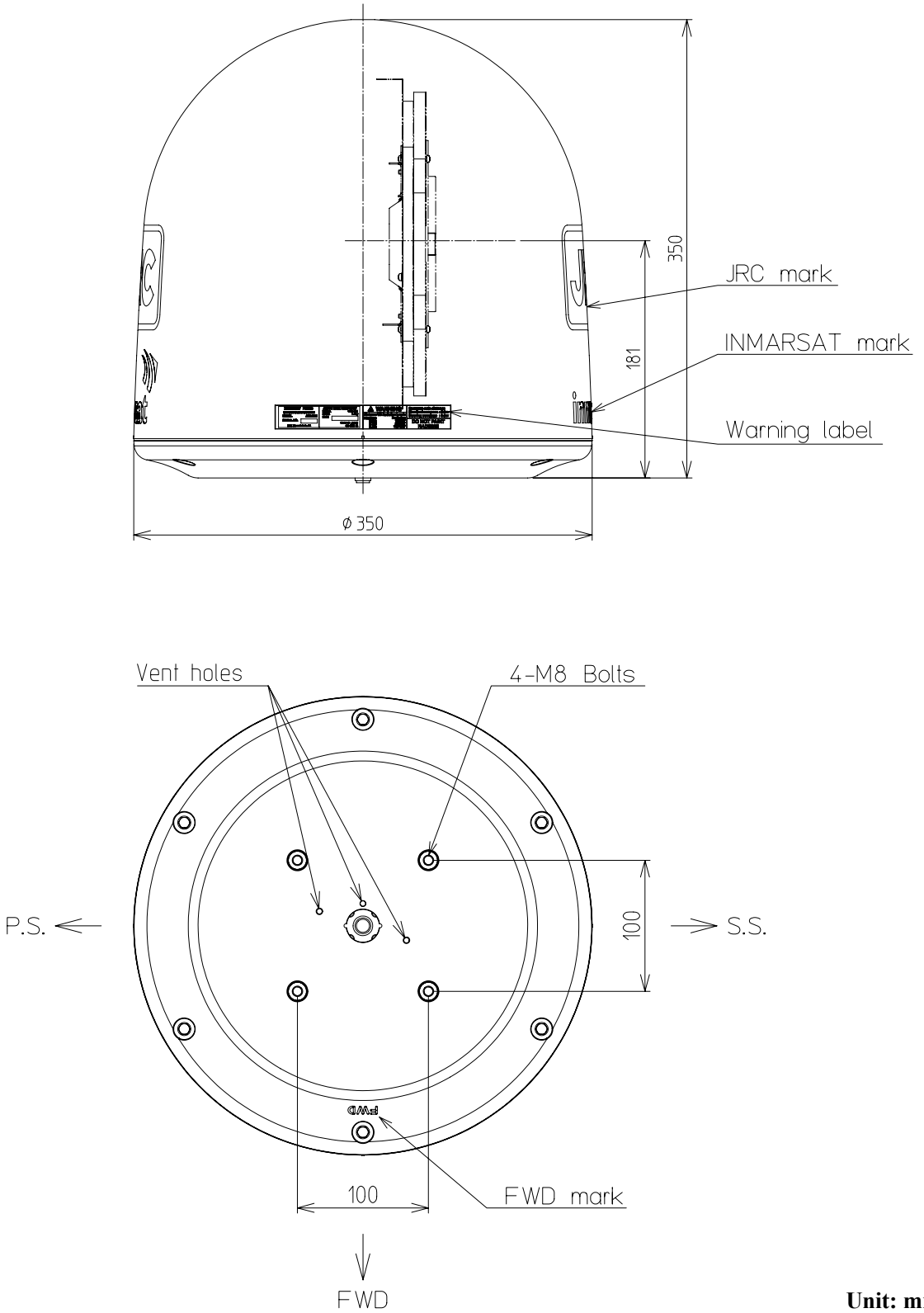
Table 2.3.2 JUE-250Components list

	Name of equipment	Type	Q'ty
JUE-250 (Standard Components)	ADE	GSC-451	1
	BDE	GSC-452	1
	Handset	NQW-267	1
	Coaxial cable	CFQ-5924A3(30m)	1
	Power cable (PSU to BDE)	7ZCSC0222B	1
	JUE-250 Operation Manual	7ZPSC0256	1
	JUE-250 Installation Manual	7ZPSC0258	1
	JUE-250 Quick Operation Guide	7ZPSC0260	1
	JUE-250 CD-ROM	7YZSC0007A	1
	Supplied parts for BDE installation	7ZXSC2502	1
	Spare fuse for BDE		3
	SIM card case		1
Option	Telephone	NQW-132B	1
	Facsimile	OKI OFFICE 86	1
	Power transformer for Facsimile (100V to 230V)	DD-118525	1
	External Power supply Unit (EXT PSU)	NBD-577C	1
	Telephone Junction Box (TEL JB)	NQE-3058B	2
	GYRO I/F Box	NQA-2066	1
	Terminal adapter	MTA128ST	1

*CFQ5924A15 (15m) and CFQ-3923A5 (50m) are available as optional components.

2.4 Dimensional drawing (JUE-250 standard components)

2.4.1 ADE (Above Deck Equipment) [GSC-451]

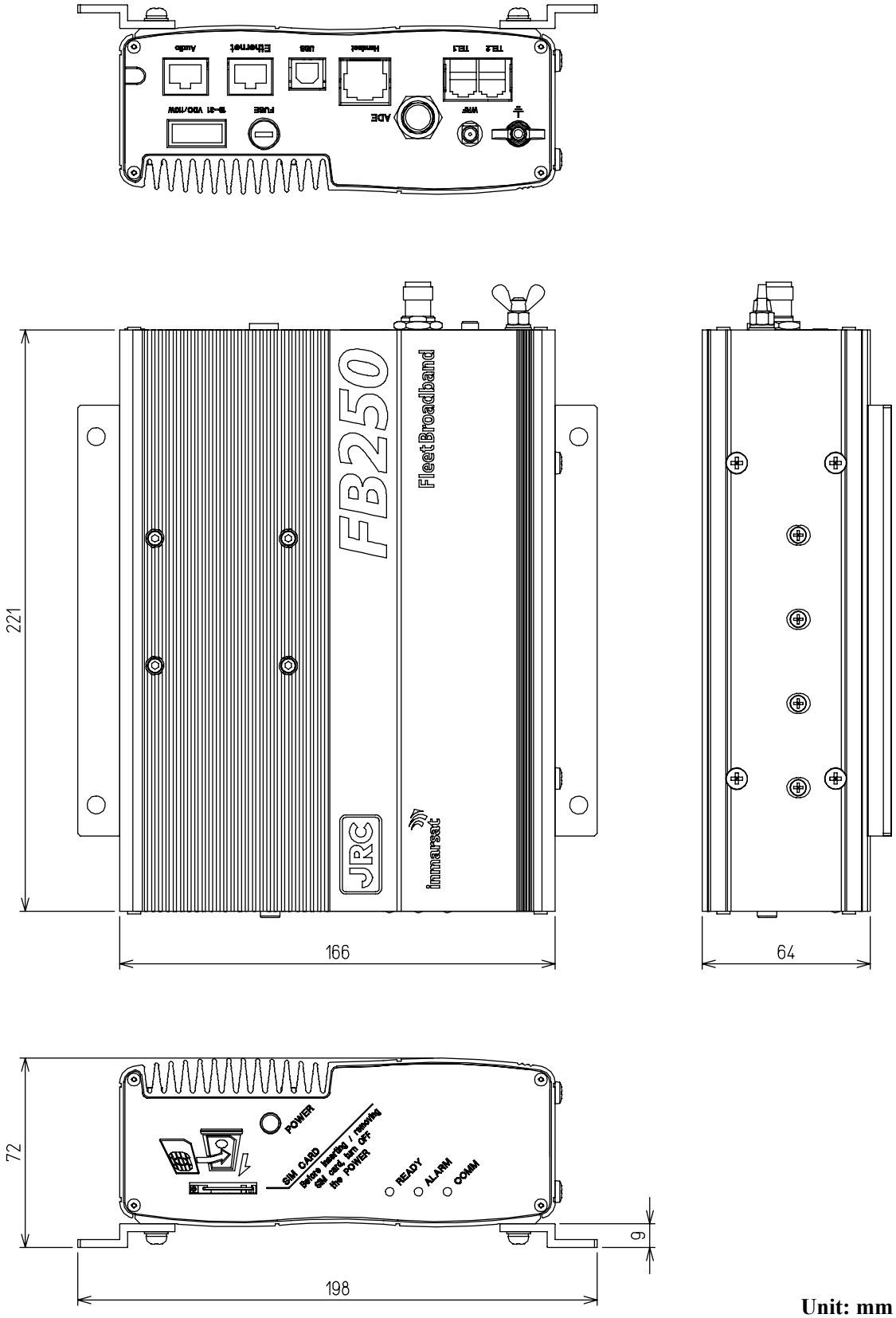


Unit: mm

Mass. approx. 7.4kg

Fig. 2.4.1 ADE

2.4.2 BDE (Below Deck Equipment) [GSC-452]

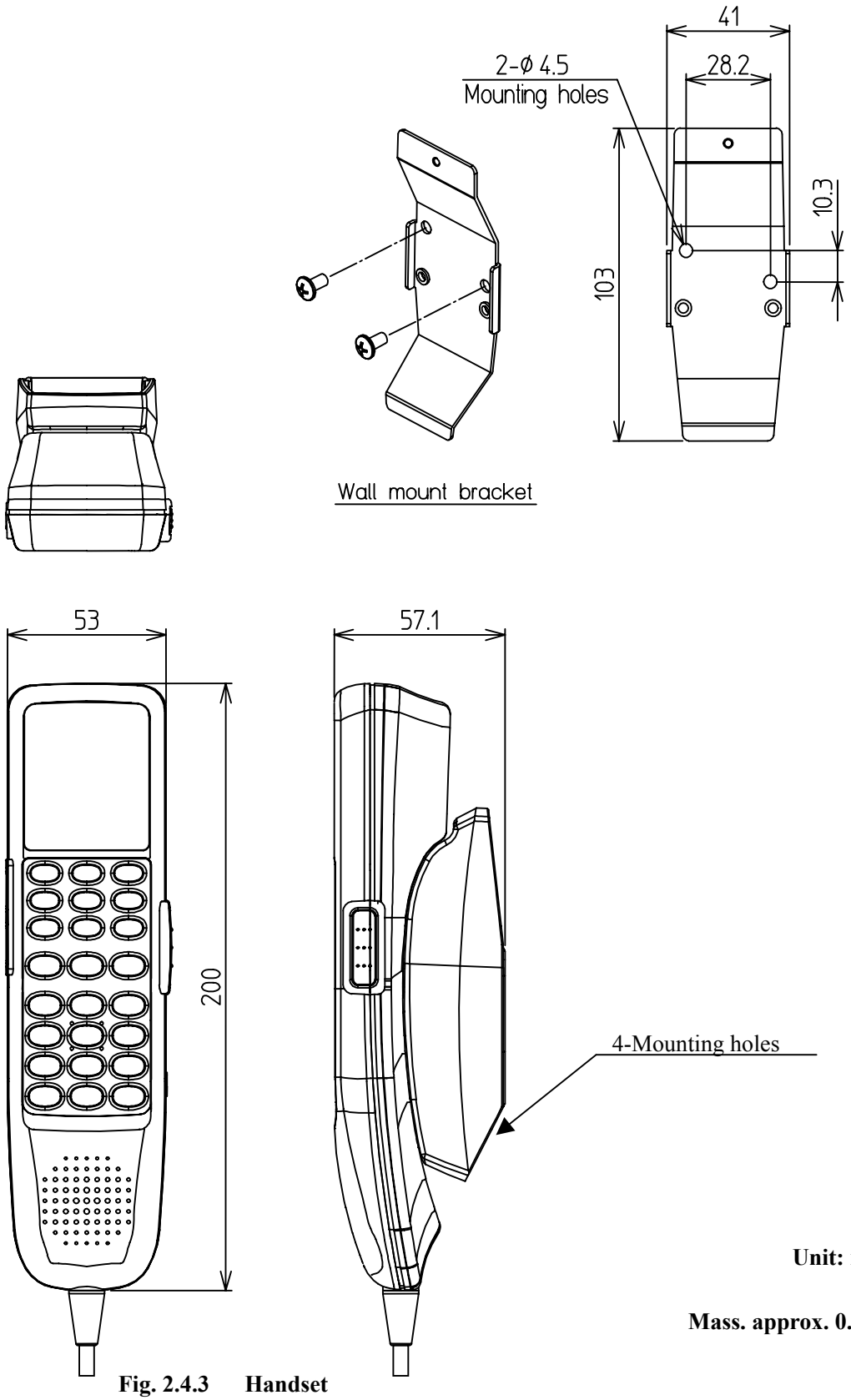


Unit: mm

Mass. approx. 2.2kg

Fig. 2.4.2 BDE

2.4.3 Handset [NQW-267]

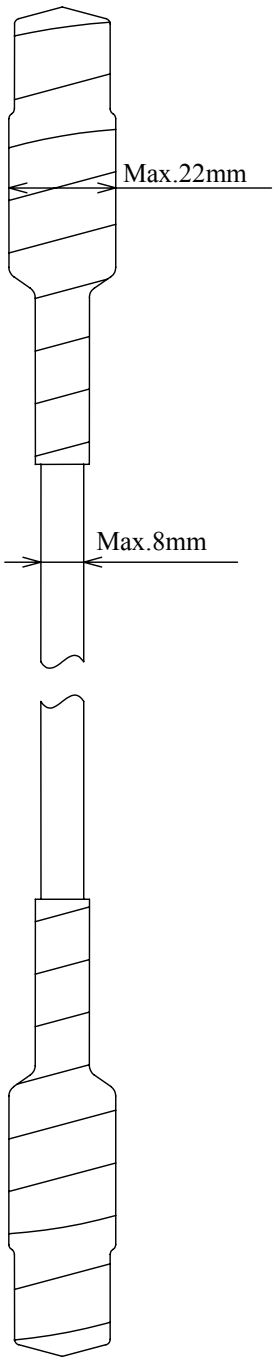


Unit: mm

Mass. approx. 0.5kg

Fig. 2.4.3 Handset

2.4.4 Coaxial cable [CFQ-5924A3]



*CFQ5924A15 and CFQ-3923A5
are available as optional components.

Unit : mm

Type	Length	Mass	Minimum bending radius
CFQ-5924A3	30m(±1.0m)	Under2.5kg	46mm
(CFQ5924A15)	(15m(±0.5m))	(Under 1.4kg)	(46mm)
(CFQ-3923A5)	(15m(±1.5m))	(Under30.0kg)	(150mm)

Fig. 2.4.4 Coaxial cable

3. Appearance

In this section, the composition of the JUE-250 and terminal equipments are explained.

1) Above Deck Equipment (ADE): Antenna unit and radome (Antenna Cover)
2) Blow Deck Equipment (BDE): Main unit
3) Coaxial cable: A Cable connects ADE to BDE
4) Handset: Handset and cradle
5) Terminal equipments: Accessories used for communication (user supplied PC, FAX, and telephone)

3.1 ADE

Acrylonitrile Ethylene Propylene Rubber Styrene (AES) radome covers the antenna equipments, which is composed of:

a) Antenna Unit contains Low Noise Amplifier (LNA),

b) Above Deck Unit contains RF and GPS circuit

c) Rotary joint

d Antenna pedestal

All signals (and power) pass through a single coaxial cable, which connects the ADE and BDE.

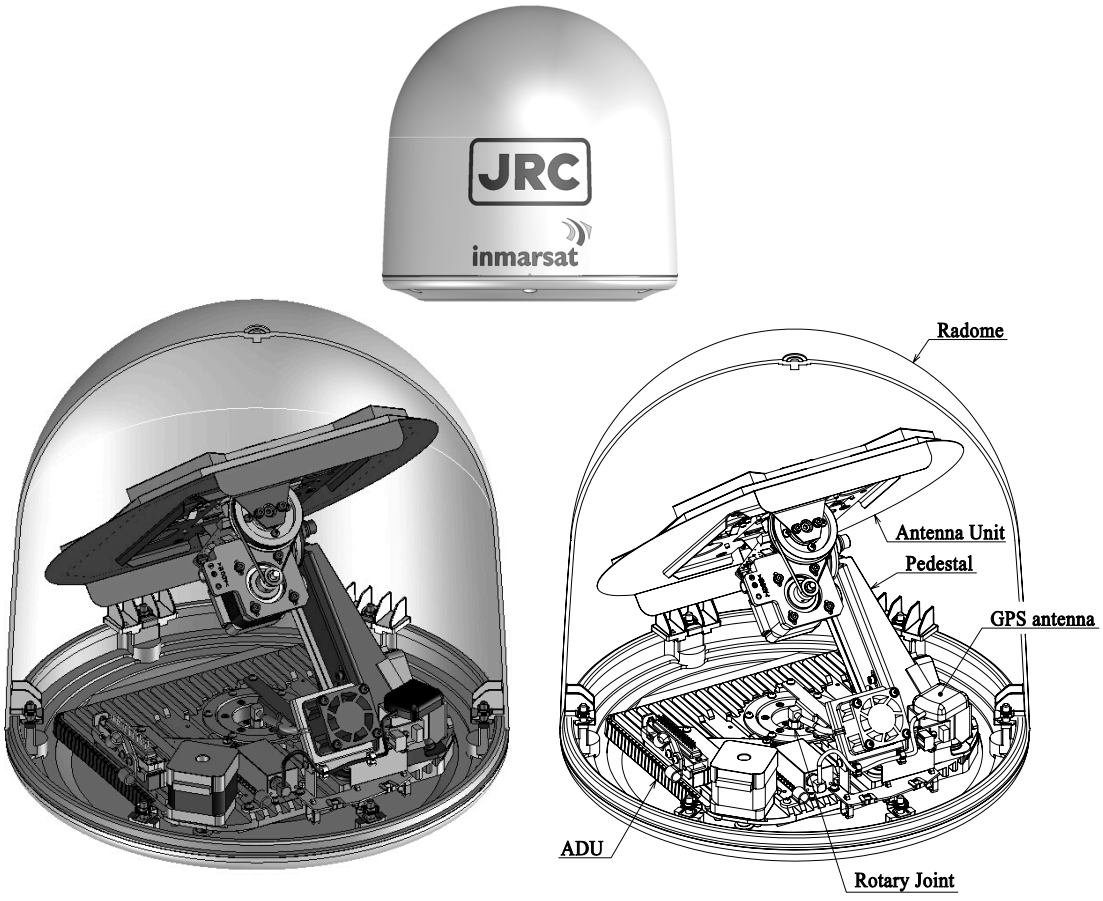
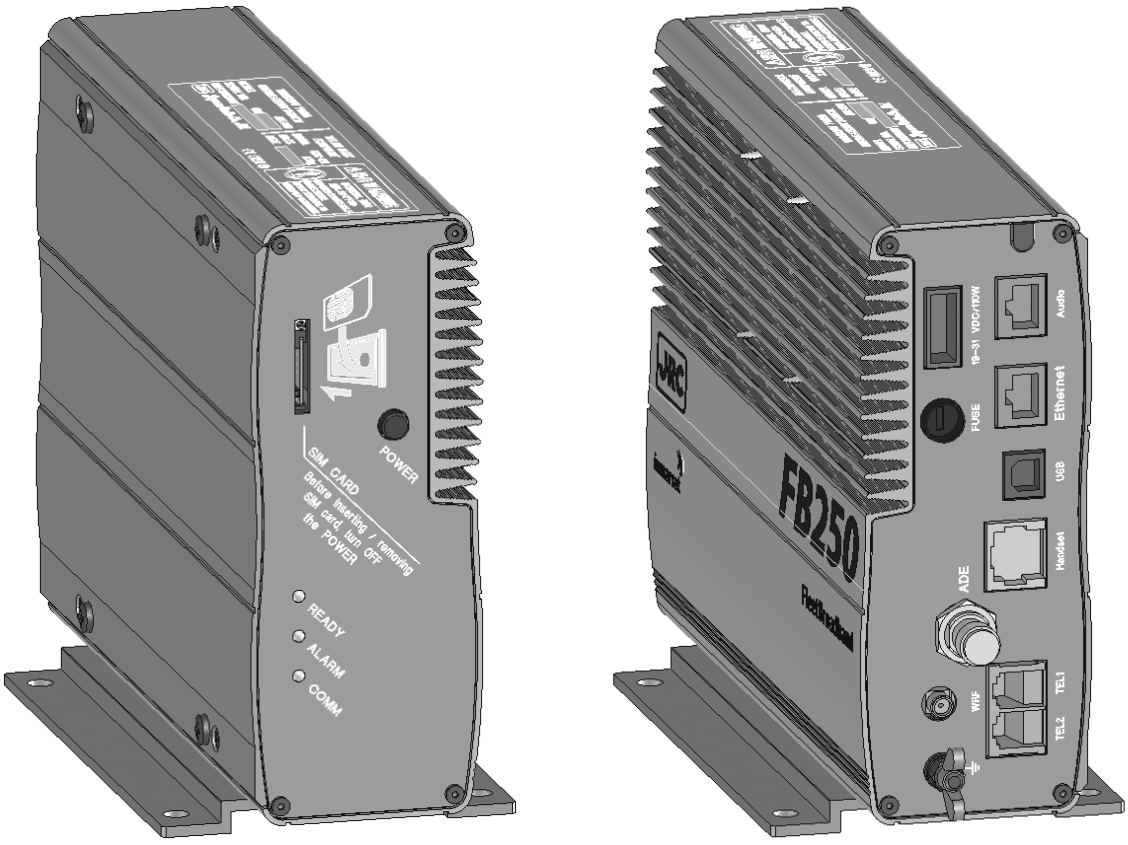


Fig. 3.1 ADE appearance and detailed skeleton view

3.2 BDE

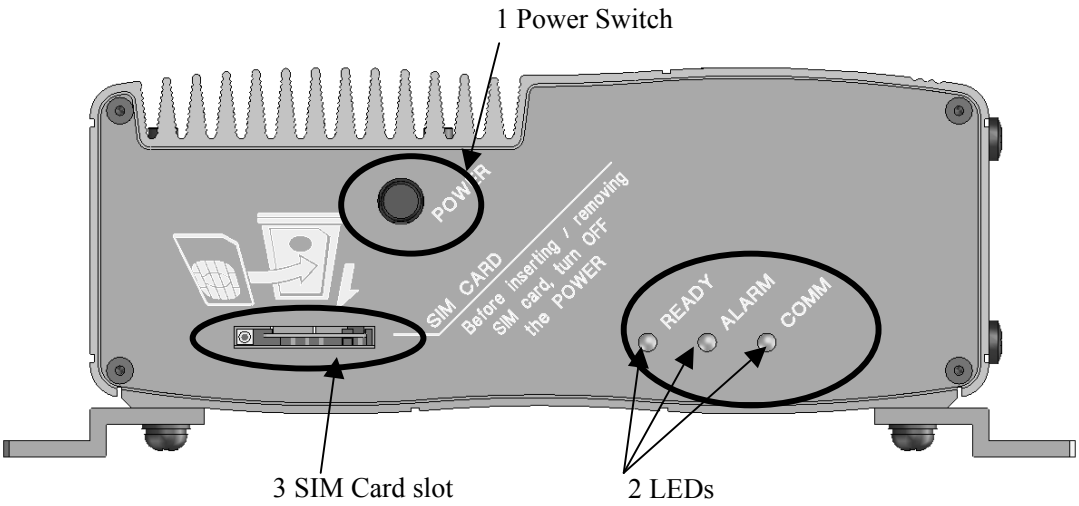
Main unit

Main unit appearance



Front view Rear view

Fig. 3.2a Main unit appearance



Front view

Fig 3.2b Main unit front view

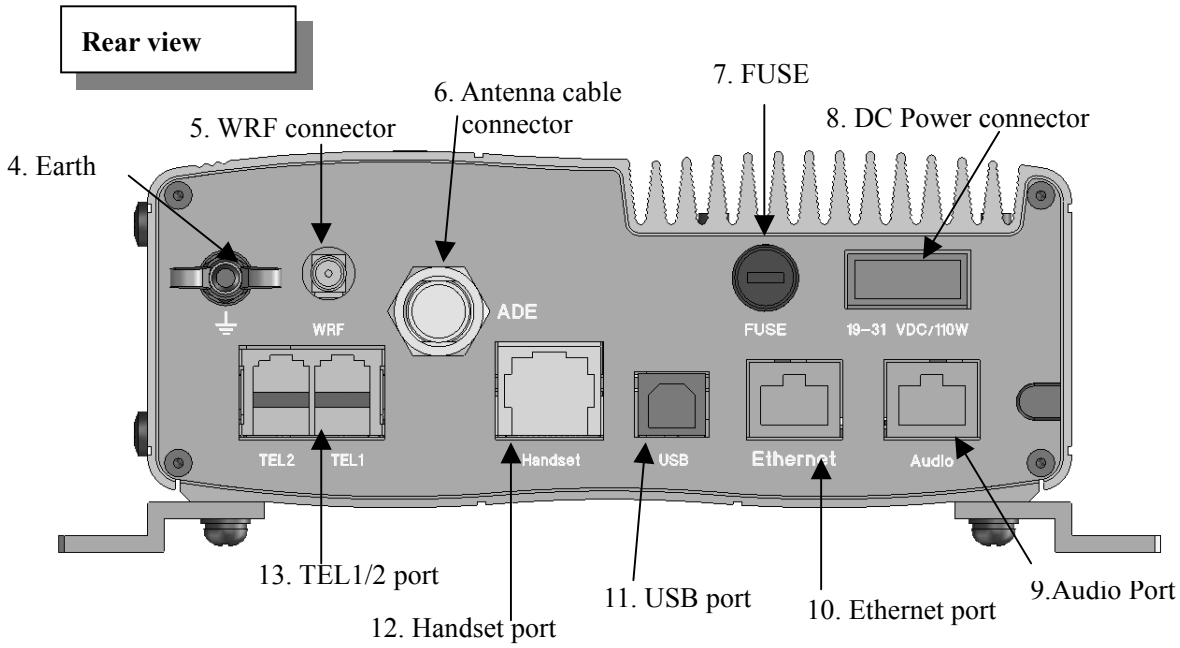


Fig. 3.2c Main unit rear view

1 Power Switch

Turns power on and off.

2 LEDs

Indicates the communication and JUE-250 status. They lit in the same way as LEDs on the Handset.

Ready lamp displays available services

Green light:

All communication services are available.

Blinking Green:

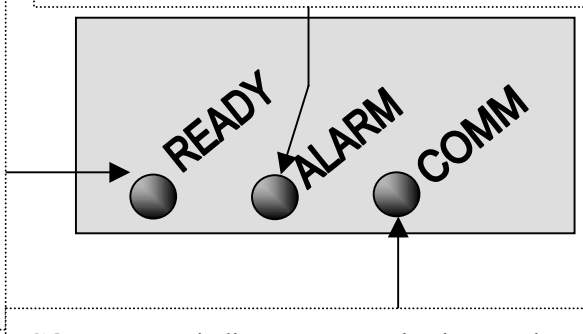
- When no service is available
- Activating (JUE-250 checking the status of itself)
- After power switch is turned off, until the power is run out completely.

(No light: power switch is OFF)

ALARM lamp indicates failure alert

Red light: Failure has occurred in the system.

(No light: The status is normal)



COMM lamp indicates communication starting.

Green light : In CS service communication

(No light: In PS service communication,
or no communication is on the way now.)

3. Appearance

3 SIM card slot

Mounts a SIM card.

4 Earth

5 WRF connector

Connects with Wide-band Radio Frequency (WRF) communication equipments.

6 Antenna cable connector

Connects with the coaxial cable from the antenna (ADE).

Replacement procedure:

7 Fuse

Melt down when over current are detected.

Replacement procedure: Loosen the folder head to counterclockwise direction with slotted screwdriver, and pull out the folder when it is ejected. Replace the fuse to new one and set it in the folder. Insert the folder and tighten it clockwise direction with pressing.

8 DC power connector

Connects with the cable which supplies the power source to the main unit.

9 Audio port (RJ-45 type 8-PIN Modular Cable for ISDN)

Connects with equipment, which has an ISDN interface.

Offered services: 64kbps 3.1kHz Audio

10 Ethernet port (RJ-45 type 8-PIN Modular Cable for Ethernet)

Connects with an equipment which has an Ethernet interface.

Offered services: Standard IP, Streaming IP, and SMS.

11 USB port (USB Cable series B plug)

Connects with an equipment which has a USB interface.

Offered services: Standard IP, Streaming IP, and SMS.

USB cable PC side :series A (male)

Main unit side: series B (male)

12 Handset port (12-PIN Modular Cable)

Connects with Handset unit.

Offered service: 4kbps Voice and SMS

13 TEL 1/2 ports (RJ-11 type 6-PIN Modular Cable)

Connects the analog equipment, terminal telephones, and facsimile to the main unit.

Offered services: 4kbps Voice, 64kbps 3.1kHz Audio

3.3 ADE - BDE connecting cable

＊This cable can be connected to ADE and BDE in either direction.

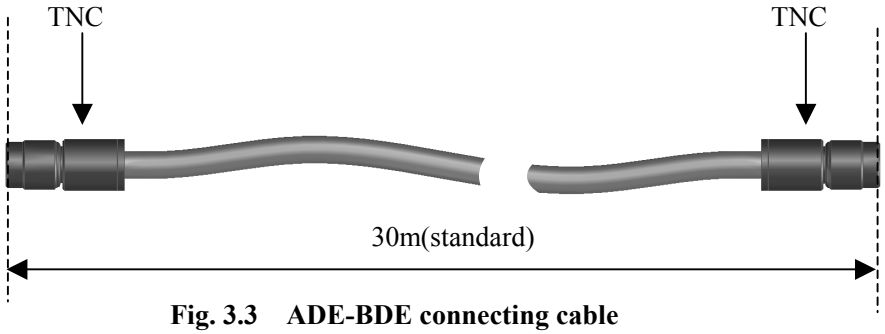
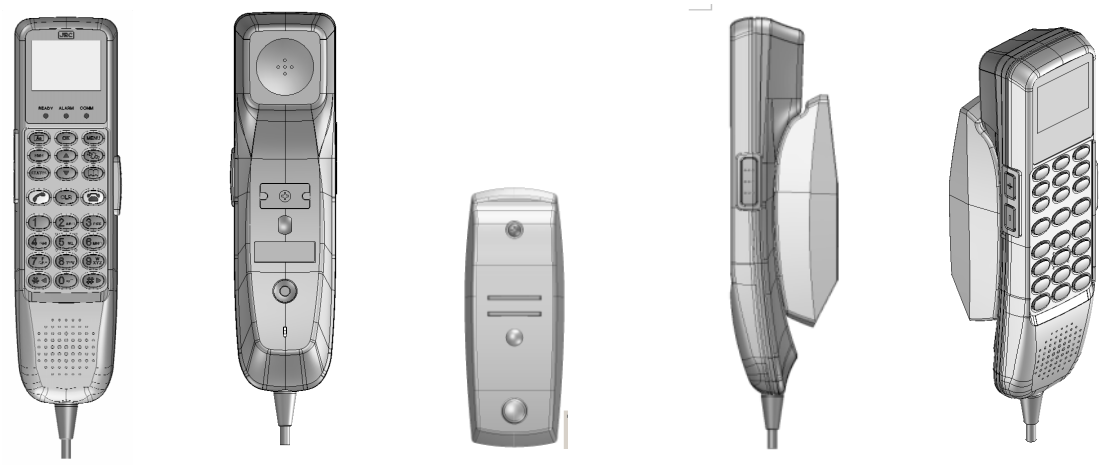


Fig. 3.3 ADE-BDE connecting cable

3.4 Handset

The Handset consists of main body and cradle (Handset rest)

The Handset is fixed on the cradle by a strong magnet.



Front view (Operation side) | Inside view (Receiver side) | Cradle | Handset fixed on cradle

Fig 3.4a Handset and cradle

Handset consists of three sections:

3.4.1. LCD / LED section

LCD screen displays JUE-250 user information.

LEDs indicate communication/apparatus status.

3.4.2. Functional section

Buttons in this section control most of the functions of the JUE-250.

3.4. 3. Alpha-Numeric section

Numeric mode is used to enter number sequences like phone numbers. Alpha mode is used to enter letters. These two modes are switched by pressing Aa button of the Function section.

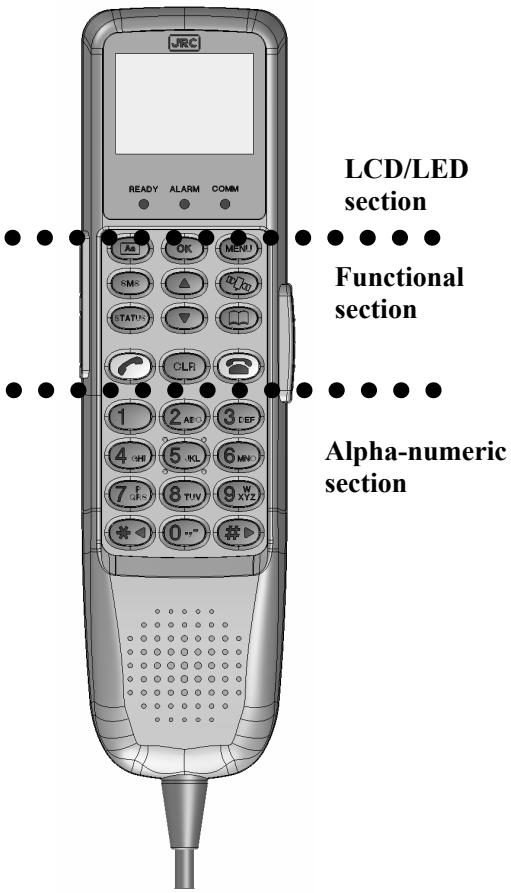


Fig. 3.4b Section of Handset

3.4.1 LCD/LED section

Functions of the LCD screens of the Handset.

Common items for all screens are:

1 [Operational button] Displays operatable keys: ▲▼ , ◀ or ▶

2 [Enter mode] Displays which key enter mode is accepted, Aa (alphabet mode), or nothing (numeric mode) is displayed. (Only in SMS editing mode, aA is displayed)

3 [Each status] Displays every status of telephone/MES-setting function: , , , or

4 [Condition of reception] Displays

5 [Connecting IP service] Displays style icon

6 [Selected satellite or terminal] Displays E64.0, HDST-VOICE, etc.

7 [Current time] Displays UTC/LT, or communicating time.

8 [Status] Displays CS PS READY, COMM (SND), etc.

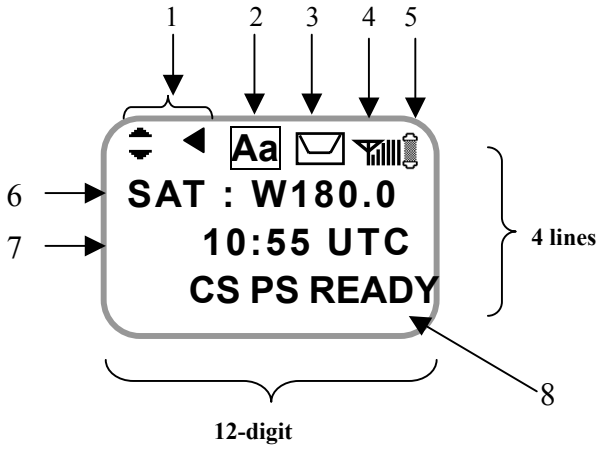
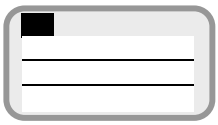
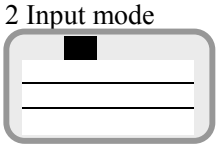
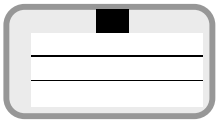
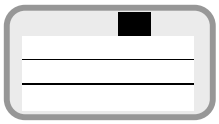


Fig. 3.4.1a Explanation of LCD section

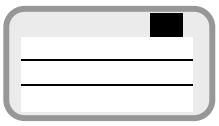
Fig. 3.4.1b LCD section

Table 3.4.1 Explanation of items displayed on screens

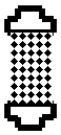
<table>
<tr><th>Displayed items</th><th>Contents</th></tr>
<tr><td>1 Operational button
  </td><td>Displays when the scrolling-up/down or switching-left/right is available.
Scroll the screen when up/down ▲ is displayed, with ▲ ▼ buttons.
Switch the screen when left/right ▲ is displayed, with *◄ #► buttons.</td></tr>
<tr><td>2 Input mode
  </td><td>Displays Aa mark for alphabet input mode. If these icons are not displayed, numeric input mode only available.
(Exceptionally in SMS menu, aA is displayed as lower case letter mode and Aa is displayed as upper case letter mode.)</td></tr>
<tr><td>3 Each status
  </td><td>1) Displays 📖 when Phone Book menu is selecting.
2) Displays 📖R when Redial menu is selecting.
3) Displays ⊘ when call is on hold.
4) Displays ✉ when SMS message is arrived

This ✉ icon is :
• Not displayed even new message is received, when another icons (📖, 📖R, and ⊘) are need to be displayed in this area.
• Disappears when Inbox menu (refer to [8.2.2 Inbox menu](p93)) is selected and [Inbox list view screen] is once opened, regardless of the newly arrived message is read or not.
• Disappears when Power OFF with displaying it, and ON afterwards.
• Kept displaying even the new message is confirmed, when it is executed by an external access such as LaunchPad.
*SMS cannot be received at all when SIM has no empty space to store. Confirm its capacity at Capacity screen of [8.2.5 Setting menu](p96).</td></tr>
<tr><td>4 Condition of reception
  </td><td>1)Displays a bar graph of signal reception level by seven (7) grades.
<table>
<tr><th>Number of bars</th><th>Communication</th></tr>
<tr><td>0</td><td>Impossible (no reception)</td></tr>
<tr><td>1</td><td>Possible to communicate but unstable</td></tr>
<tr><td>2</td><td>Possible to communicate but unstable</td></tr>
<tr><td>3</td><td>Possible to stable communicate</td></tr>
<tr><td>4</td><td>Possible to stable communicate</td></tr>
<tr><td>5</td><td>Possible to stable communicate</td></tr>
<tr><td>6</td><td>Possible to stable communicate</td></tr>
</table></td></tr>
</table>

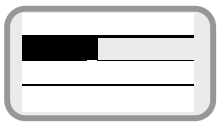
5 Connecting IP service



1)Displays an icon which shows connecting IP service .

Icon style	IP service type
	Standard IP service only.
	Streaming IP service only.
	Both of above IP services.

6 Selected Satellite or terminal

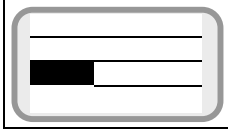


Displays selected satellite /communicating terminals.

- Satellite (Displays when CS communication is not used)
  It displayed in units of 0.1 degree, and in the range of W180.0 to E180.0
- Communicating terminal (displays in communication)

Terminal name
HDST-VOICE
TEL1-VOICE
TEL1-FAX
TEL2-VOICE
TEL2-FAX
ISDN-VOICE
ISDN-FAX

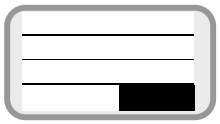
7 Current time



Display can be selected from UTC (Universal Time coordinated) and LT (Local Time coordinated). Refer to [8.9.1.2 Local Time setting](p110).

3. Appearance

8 Status



Displayed only in Secret code using status

Displayed only in SMS menu

The items in this table are arranged in displaying priority.

Displays the status of equipment. Normally, this area displays below contents under waiting communication or under transmitting.

Status	Displayed txt.	Contents
Normal	LOCK	The operation of Handset is protected with Terminal Lock
Normal	nnn/NNN	Displays the used amount (nnn) and total capacity (NNN) of input characters of SMS
Abnormal	ADE?	ADE is abnormal condition
Abnormal	SIM?	SIM is abnormal condition
Abnormal	POSITION?	GPS does not receive the radio wave from satellite. It is not always failure. The other factors including blocking can be considered.
Normal	HEADING?	GYRO of Sync/Step requires Heading value
Abnormal	GYRO?	GYRO is abnormal condition.
Normal	COMM (SND)	Called from the ship.
Normal	COMM (RCV)	Called from the land.
Normal	SAT SEARCH	Searching Satellite.
Normal	REGISTERING	It is displayed from the Satellite search is completed and until READY status is started.
Abnormal	SEARCH NG	Satellite search has been failed.
Normal	CS PS READY	Communication is possible. (Circuit switch service and Packet switch service are available)
Normal	CS READY	Communication is possible. (Circuit switch service only available)
Normal	PS READY	Communication is possible. (Packet switch service only available)
Normal	NOT READY	Communication is impossible.

Lighting of LEDs

Ready lamp displays available services

Green light:

Communication services are available.

Blinking Green:

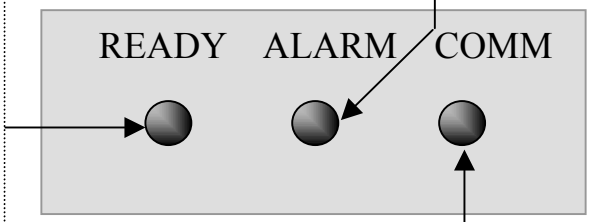
- When no service is available
- Activating (JUE-250 checking the status of itself)
- After power switch is turned off, until the power is run out completely.

(No light: power switch is OFF)

ALARM lamp indicates failure alert

Red light: Failure has occurred in the system.

(No light: The status is normal)



COMM lamp indicates communication starting.

Green light : In CS service communication

(No light: In PS service communication,
or no communication is on the way now.)

Fig. 3.4.1c Indication of LEDs

LEDs on the Handset are lit in the same way as the main unit, except just after the startup.

3.4.2 Function button section

This section describes function buttons except those for entering characters.

Fig. 3.4.2 Function button section

Buttons and its function

Aa Switching button Switches enter mode, between alphabets and numbers.

SMS SMS button Reads, creates, sends, and deletes Short Message Service（SMS).

STATUS STATUS button Makes direct access to STATUS menu.

OK OK button Registers entered contents.

▲ Scroll up button
Scrolls up the screen / makes direct access to Redial menu.

▼ Scroll down button
Scrolls down the screen/makes direct access to Redial menu.

MENU Menu button Makes direct access to TOP Menu.

Satellite button Makes direct access to Satellite menu.

Phone Book button Makes direct access to PHONE BOOK menu.

Off Hook(Call starting)button Makes a call and receives a call.

CLR Clear button Clears (cancels) the entry immediately before.

On Hook(Call finishing)button Hangs up the call.

3.4.3 Alpha-numeric button section

Buttons and usage

1
2ABC
3DEF
4GHI
5JKL
6MNO
7PQRS
8TUV
9WXYZ
0.,-

This button adjusts the voice volume and the screen brightness of the Handset.

This button has no function.

Enters numerical/alphabetical characters and symbols.

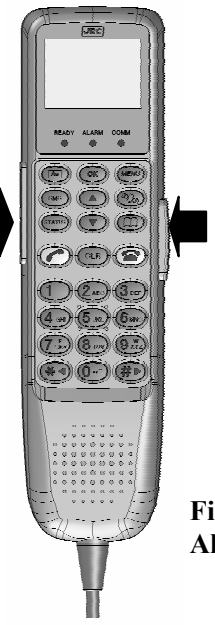


Fig. 3.4.3
Alpha-numeric button section

▶

* ◀

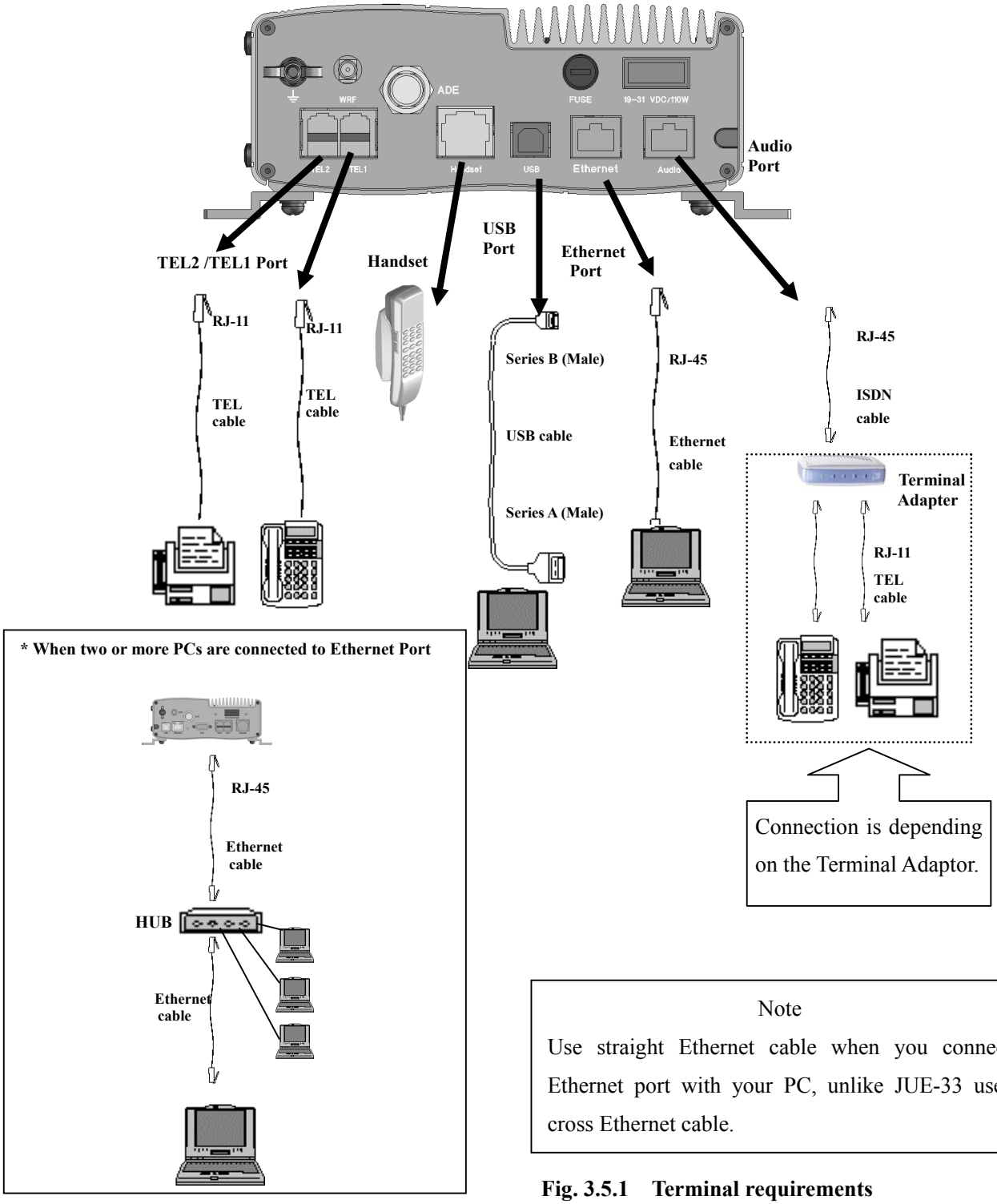
Enters # and also scrolls the screen to the right direction.

Enters* and also scrolls the screen to the left direction.

3.5 Communication terminals

3.5.1 Terminal requirements

＊Series connection (of terminal telephone and FAX) is not available on one port.



Note

Use straight Ethernet cable when you connect Ethernet port with your PC, unlike JUE-33 uses cross Ethernet cable.

Fig. 3.5.1 Terminal requirements

3.5.2 Usage environment

Table 3.5.2 Usage environment

	Item	Contents
PC	OS	Microsoft Windows XP
	Interface	Ethernet, USB
ISDN Terminal Equipment	Switch type	Euro ISDN
	Coding type of voice	A-law
	Interface	S/T

3.6 Handset menu

On the JUE-250, various menu screens can be displayed and set, from Handset.

GUEST User [*1)] cannot utilize the menus of ADMIN User[*2)].

[*1)] GUEST User: General user
[*2)] ADMIN User：User who is authenticated to make settings of the JUE-250.

Handset menu

For more detail, refer to [8. Handset Menu System](p79).

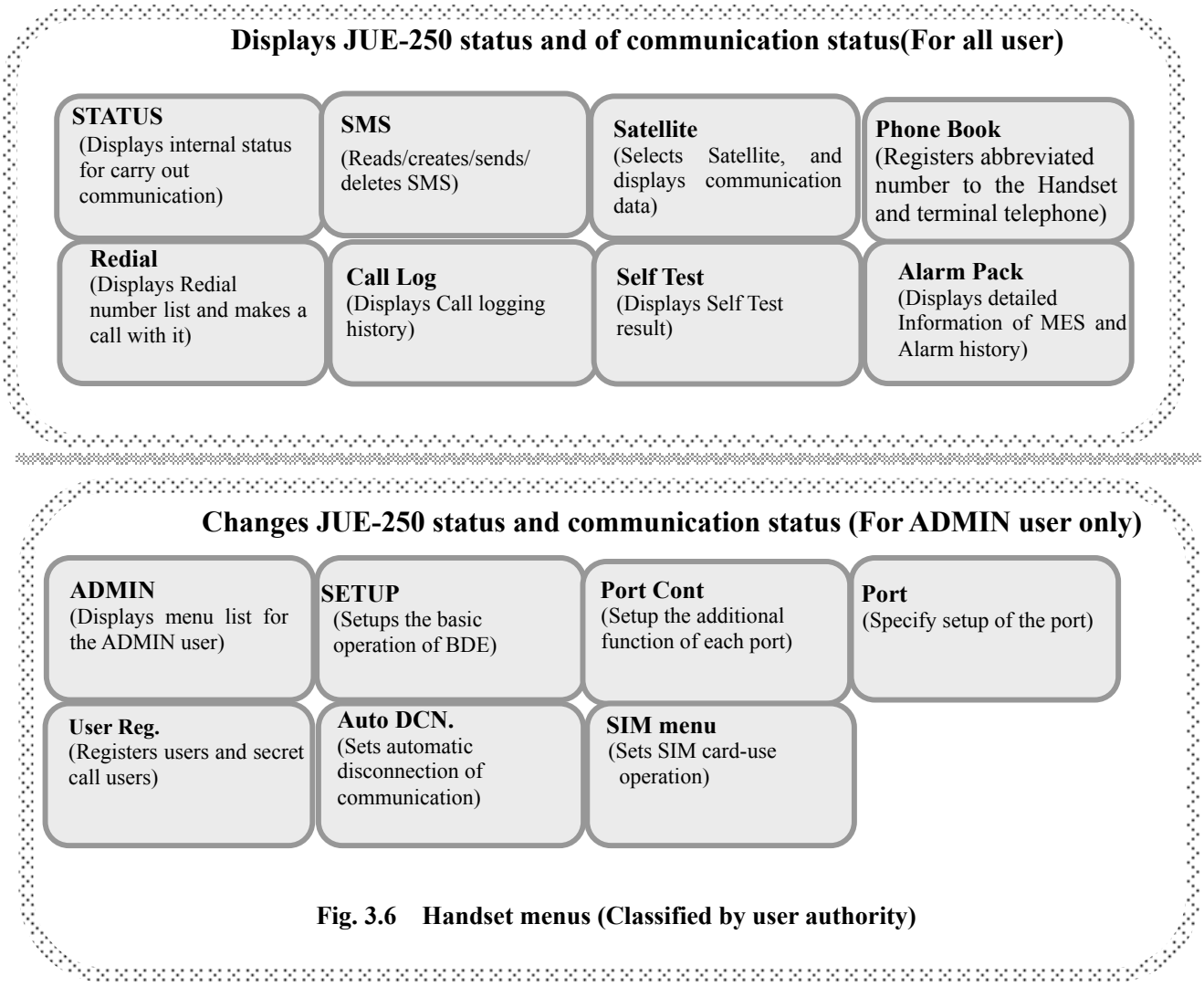

Displays JUE-250 status and of communication status(For all user)
STATUS
(Displays internal status for carry out communication)
SMS
(Reads/creates/sends/ deletes SMS)
Satellite
(Selects Satellite, and displays communication data)
Phone Book
(Registers abbreviated number to the Handset and terminal telephone)
Redial
(Displays Redial number list and makes a call with it)
Call Log
(Displays Call logging history)
Self Test
(Displays Self Test result)
Alarm Pack
(Displays detailed Information of MES and Alarm history)
Changes JUE-250 status and communication status (For ADMIN user only)
ADMIN
(Displays menu list for the ADMIN user)
SETUP
(Setups the basic operation of BDE)
Port Cont
(Setup the additional function of each port)
Port
(Specify setup of the port)
User Reg.
(Registers users and secret call users)
Auto DCN.
(Sets automatic disconnection of communication)
SIM menu
(Sets SIM card-use operation)

Fig. 3.6 Handset menus (Classified by user authority)

4. Getting started

In section 4.1, connecting the Handset and terminal devices to Main unit, and setting SIM card are described.

NOTE

JUE-250 has two types of satellite tracking mode, **Signal tracking mode** and **Gyro tracking mode**. Press MENU+3 button (Satellite menu) on the Handset. [3.Heading] is displayed when the JUE-250 is set as Gyro tracking mode.

Section 4.2 describes initial setting for communication by Handset.

Before carry out connection and initial setting, installation of Launchpad is also required to your PC. Detail of the LaunchPad is as follows.

About the LaunchPad

LaunchPad is the application, which runs on the PC for the BGAN/FBB network.
It displays status/setting of the equipment, connects/disconnects Standard/Streaming IP service and sends/receives SMS, etc. on your PC.
Operation using Launchpad is partly introduced in this chapter.
Install the LaunchPad from attached CD-ROM into your PC, preliminarily.

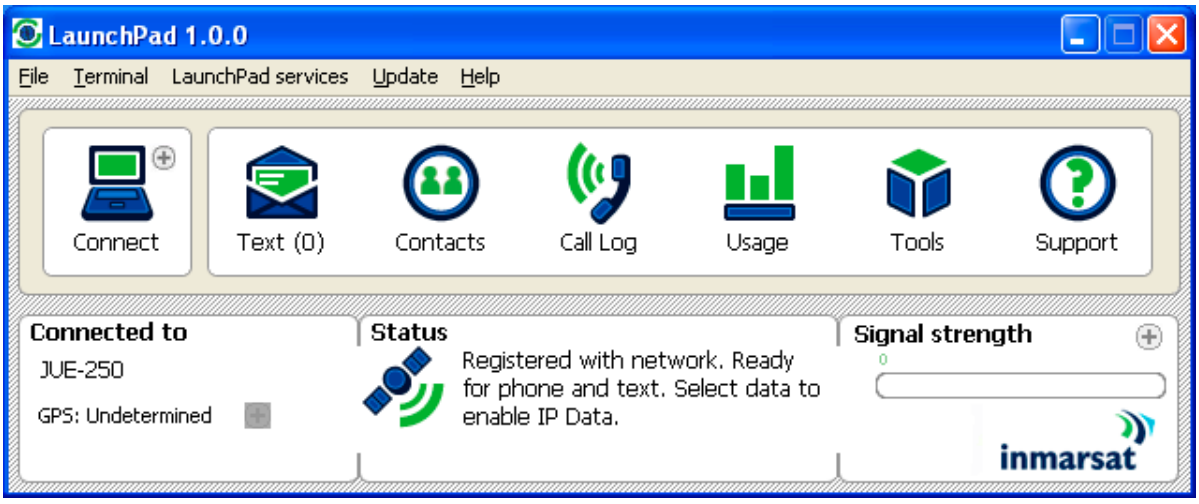


Fig.4. The main window of LaunchPad

4.1 Connecting terminals and power on

4.1.1 Connecting terminals with cables

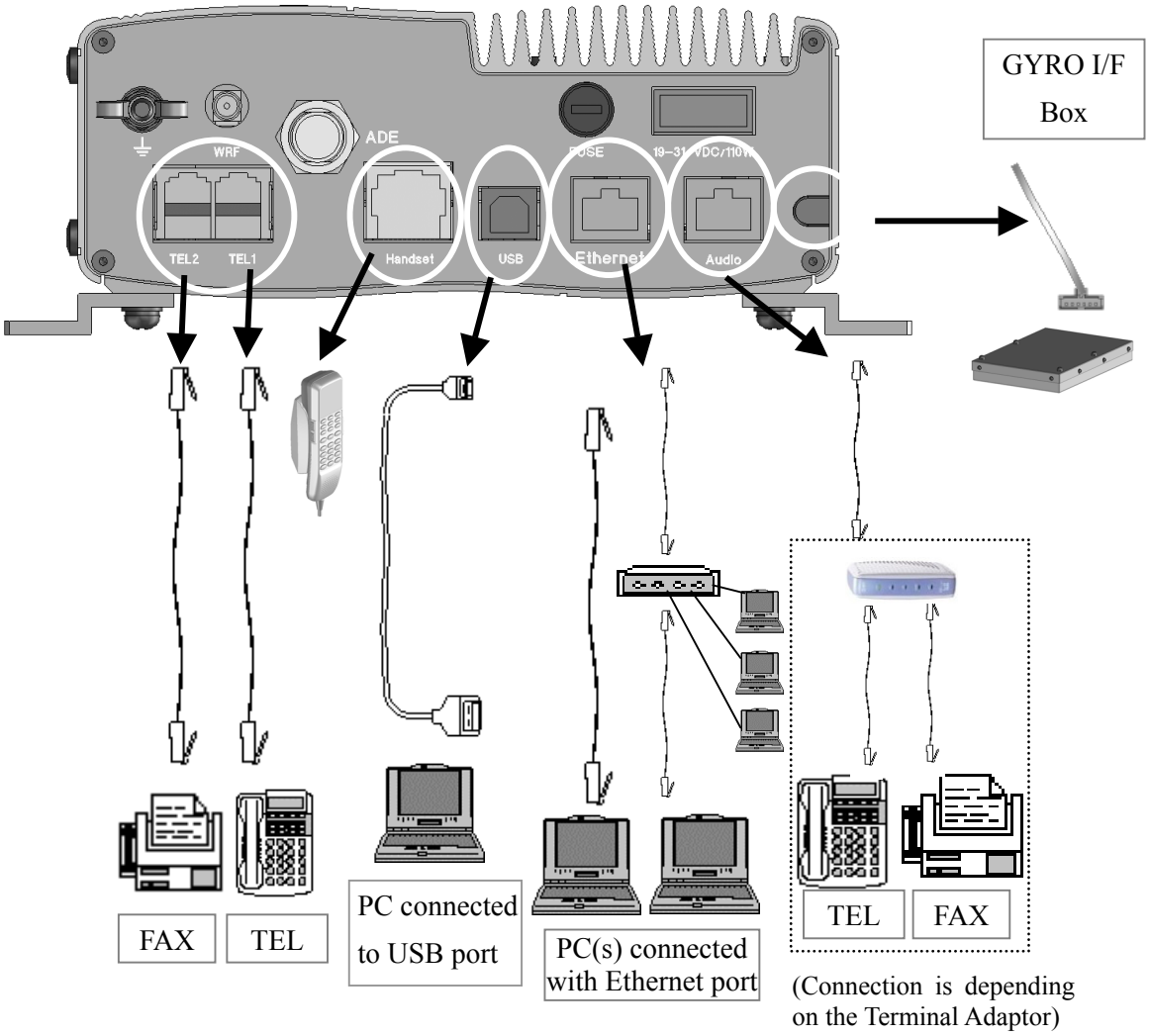


Fig.4.1.1 The Cable connection of each terminal

Note
Use straight Ethernet cable when you connect Ethernet port with your PC, unlike JUE-33 uses cross Ethernet cable.

Connecting terminal telephone and FAX to TEL1/2port

Connect terminal telephone/FAX to TEL1 and TEL2 port with 2 wire, 6-PIN modular cable (RJ-11 type).

Connecting Handset to Handset port

Connect adapter of Handset to Handset port.(12-PIN modular cable)

Connecting PC to USB port

Connect PC to USB port with USB cable.

Connecting PC to Ethernet port

Connect PC to Ethernet port with Ethernet cable.

When you connect two or more LAN PCs via HUB, use straight LAN cable and connect each device. Read the manual of HUB first, then buy suitable cables.

Connecting terminal adapter to Audio port

Connect terminal adapter to Audio port with ISDN cable.

(Subsequent connection depends on the type of terminal adapter)

4.1.2 Setting/removing SIM card

Before turning on the power, setting SIM card is required in every time.

Note

- JUE-250 will not work without a valid SIM card, which is furnished from the Distribution Partner.
- Do not set/remove the SIM card during power switch is turned on.
- Make sure that power switch is correctly turned off, before you set/remove the SIM card to/from main unit.

SIM card setting procedure (Before power switch is turned on)

1) Release the SIM cardholder by pressing the eject button (yellow button located left edge of SIM card slot) with ball pen chip or like that.

2) A black holder will eject from SIM card slot. Then withdraw it. Install the SIM card in the cardholder making sure it snaps into place. Make sure that the SIM card's gold contacts are facing out from the holder.

3) With the card in the holder, gently insert the holder with the card's gold contacts facing down.

SIM card removing procedure (After power switch is turned off)

1) Release the SIM cardholder by pressing the eject button (yellow button located left edge of SIM card slot) with ball pen chip or like that.
2) A black holder will eject from SIM card slot. Then withdraw it.
3) Remove the SIM card from the holder.
4) Insert the empty holder back into SIM card slot.

4.1.3 Power ON

Before turning on the power, check the following;

- Check the obstacles between antenna and satellite.
- Check that SIM card is correctly set.

CAUTION

Do not turn off the POWER switch for long hours during sailing. Malfunction of the antenna drive and other troubles may results.

Power ON

Turn the "POWER" switch of the main unit to "ON".

All LEDs on the front panel will light up in a moment. Then, the ALARM and COMM lamps will go out, only the green READY lamp will be still blinking.

To power off, turn the "POWER" switch to "OFF".

Then, the READY lamp begins blinking in green, while the disconnect process is carried out. After, the disconnect process has been completed, the power supply is turned off.

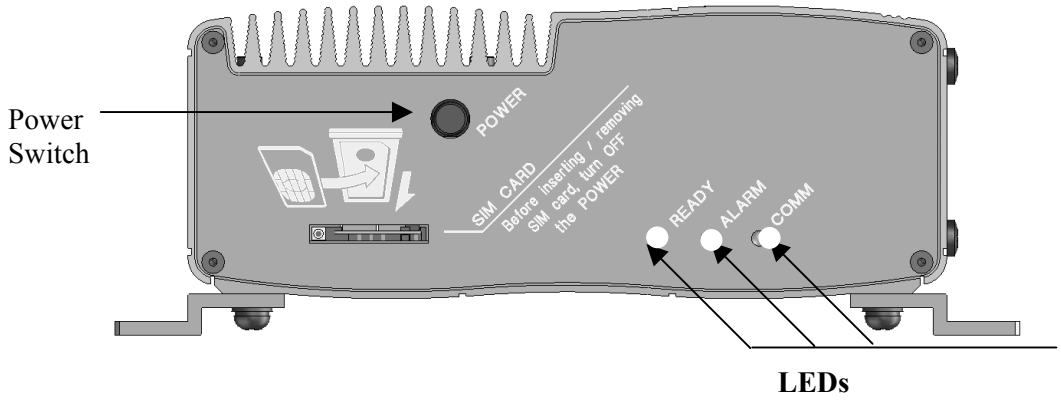


Fig.4.1.3a Power switch and LEDs of Main unit

Satellite Search (acquisition) function works automatically

When JUE-250 is turned on, the system automatically detects the satellite position by calculating ship's position based on GPS (built-in) data, turns the antenna towards the satellite.

After acquiring the satellite, the JUE-250 automatically controls the antenna angle to maximize receiving signal strength.

LCD screen of Handset displays "CS PS READY" when communication is available.

Note

- When the REC level is low, the communication may fail due to the circuit design, by decreasing rate of successful call, even if “CS PS READY” is displayed on LCD screen.

The LCD screen of Handset may not turn to “CS PS READY” after 5 minute since powered on. This status is for stabilize the main unit, not abnormal.

Note

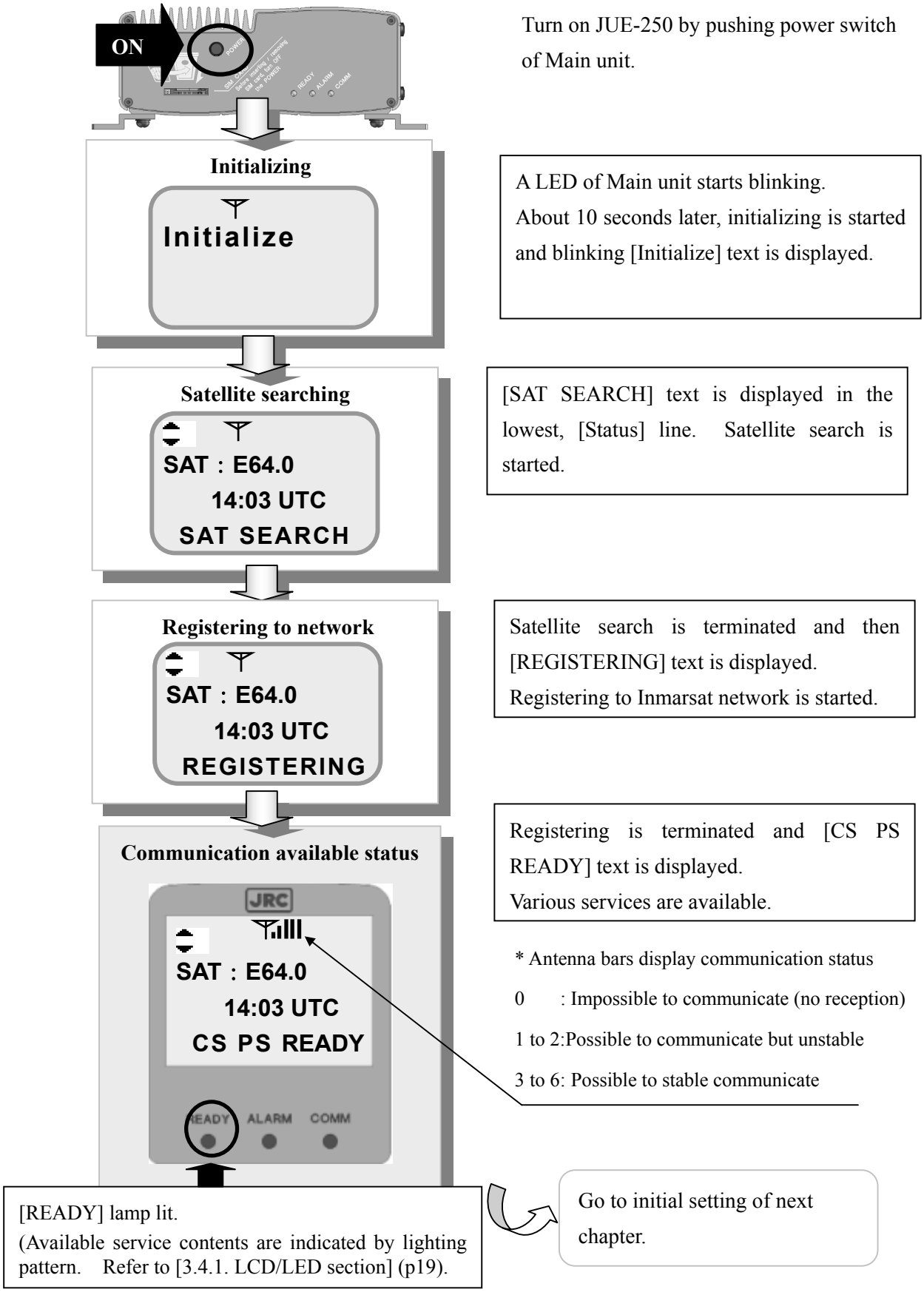
Confirm that the differ is not so much, between the GPS data of Handset and the positioning data of GPS located in a ship , when the signal from satellite cannot receive.
(Refer to [8.1. 3 Position status display]).

Contact the purchasing dealer, JRC agent or one of the JRC branches with confirming above matter, when the satellite search function does not work.

”SEARCH NG” is displayed in status column of Handset screen, when automatic satellite search function is failed. In this case, carry out satellite acquisition again manually.

Fig. 4.1.3b SEARCH NG screen

4.1.4 Screen display of Handset



Turn on JUE-250 by pushing power switch of Main unit.

A LED of Main unit starts blinking.
About 10 seconds later, initializing is started and blinking [Initialize] text is displayed.

[SAT SEARCH] text is displayed in the lowest, [Status] line. Satellite search is started.

Satellite search is terminated and then [REGISTERING] text is displayed.
Registering to Inmarsat network is started.

Registering is terminated and [CS PS READY] text is displayed.
Various services are available.

* Antenna bars display communication status

0 : Impossible to communicate (no reception)

1 to 2:Possible to communicate but unstable

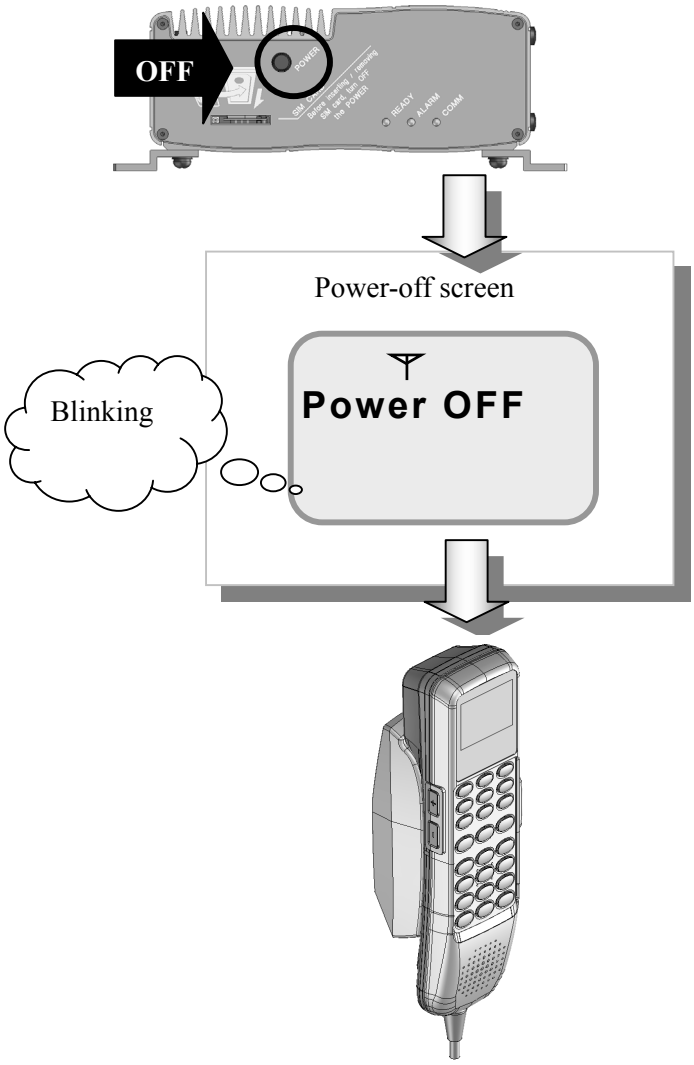
3 to 6: Possible to stable communicate

[READY] lamp lit.
(Available service contents are indicated by lighting pattern. Refer to [3.4.1. LCD/LED section] (p19).

Go to initial setting of next chapter.

Fig.4.1.4a Screen transition when Power switch is turned on

(Screen transition when power switch is turned off)



Turn off the power switch.

Quitting operation is on the way in the JUE-250. Characters on the screen blink.

Screen and all LEDs are turned off.
Operation is completed.

Fig.4.1.4b Screen transition when Power switch is turned off

NOTE

Carry out available countermeasure referring to [8.10.Other screens: TX alarm screen] (p126), when JUE-250 displays the below screen during communication.

These screens indicate a failure has occurred on the communication system of the JUE-250.

TX Alarm screen

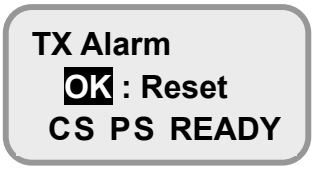


Fig. 4.1.4c TX alarm screen

4.2 Initial setting for communication

Setting flow

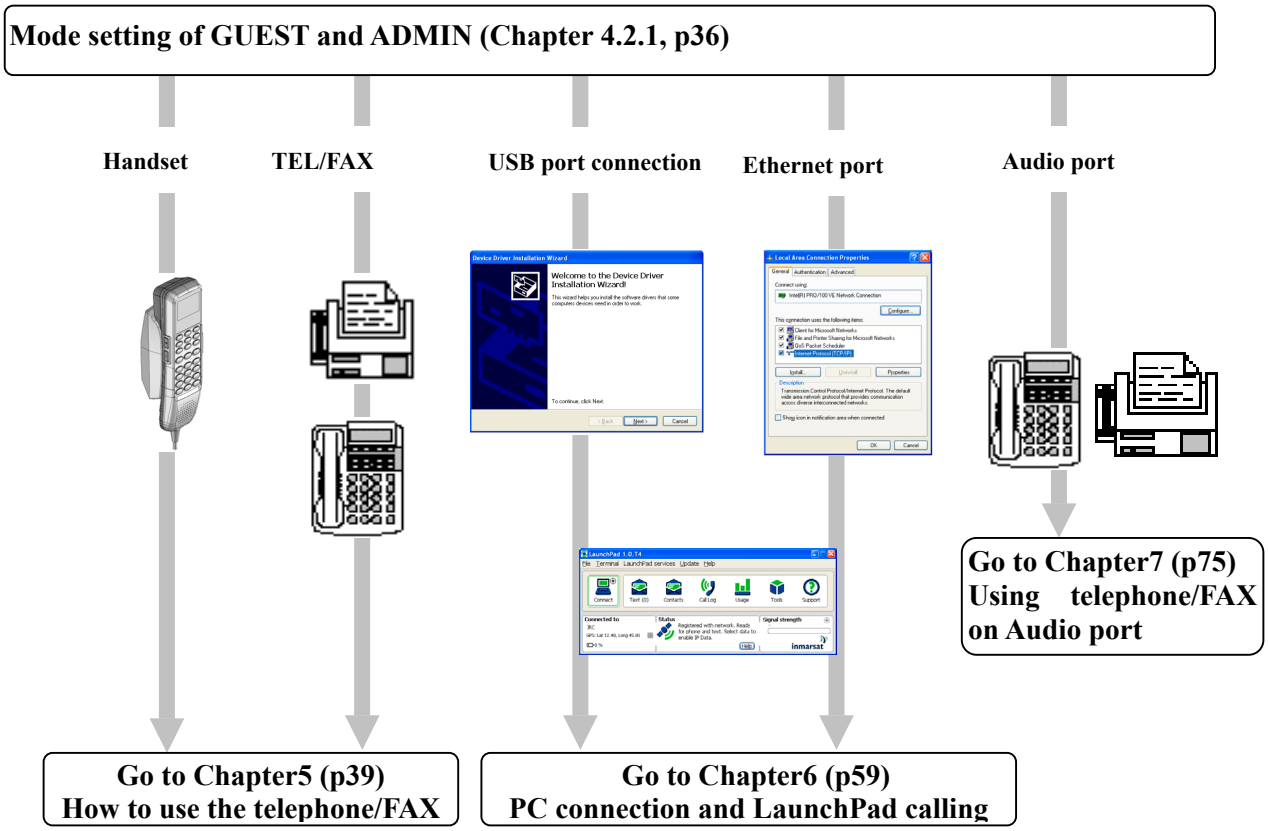

Mode setting of GUEST and ADMIN (Chapter 4.2.1, p36)
Handset
TEL/FAX
USB port connection
Ethernet port
Audio port
Welcome to the Device Driver Installation Wizard!
Go to Chapter7 (p75) Using telephone/FAX on Audio port
Go to Chapter5 (p39) How to use the telephone/FAX
Go to Chapter6 (p59) PC connection and LaunchPad calling

Fig. 4.2a Setting flow

* To setting of JUE-250, switch the user mode to ADMIN first.

NOTE

Following screen pops-up for a moment and returns to previous action/screen when wrong operation/entering is carried out from Handset.

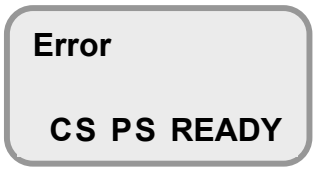


Fig. 4.2b Setting error screen

4.2.1 Mode setting of GUEST and ADMIN

GUEST user can perform the daily operation of the JUE-250.

ADMIN user can access additional functions like setup of the JUE-250 and information control as a system manager.

When power switch is pressed only, the user logs in as a GUEST user;

To operate the ADMIN user-limited menu described [5.1.5] or after [8.9] of this Manual, Log-in with secret code of ADMIN user is required.

Note

Default secret code of ADMIN is “0001”.

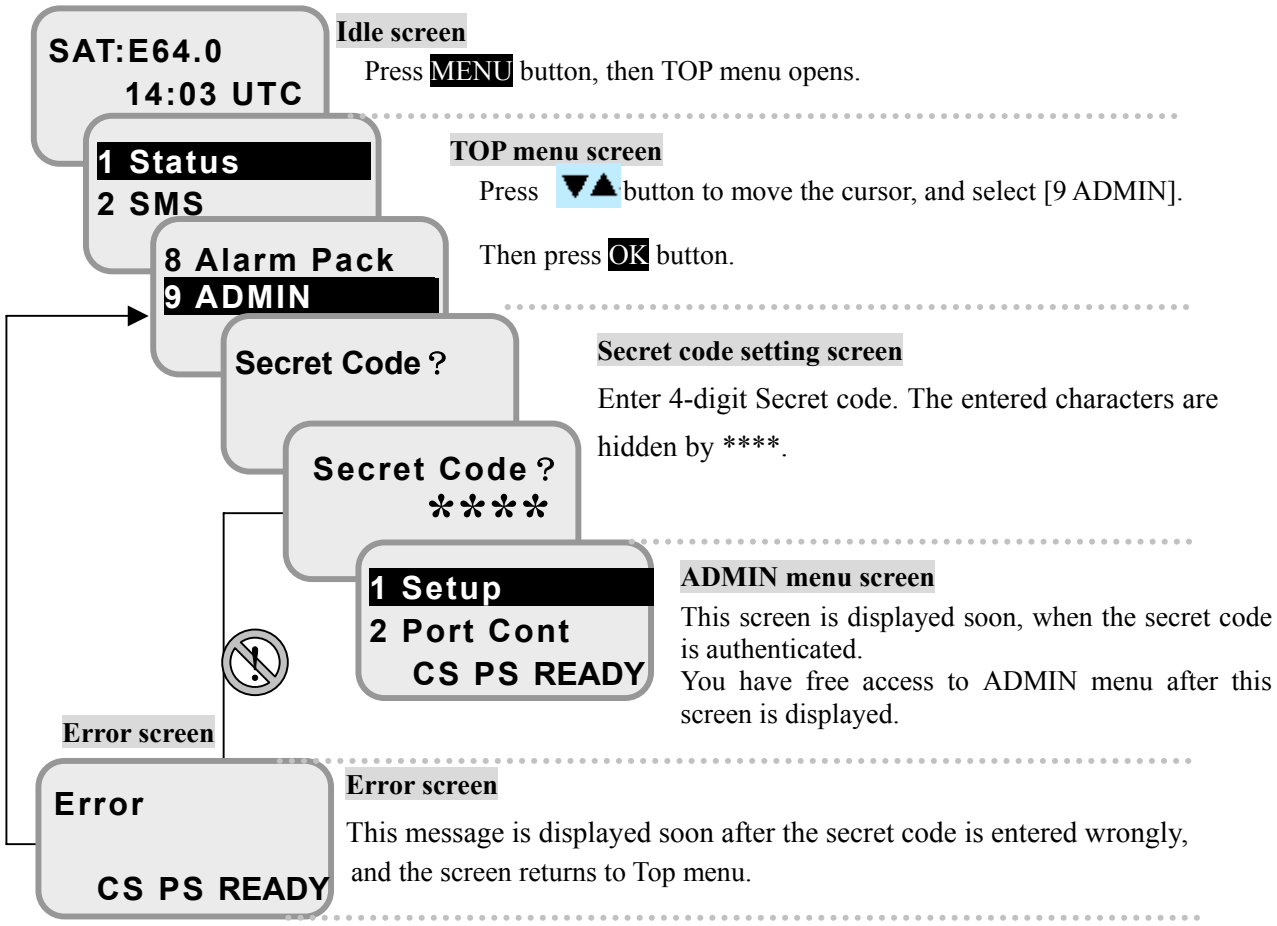

SAT:E64.0
14:03 UTC
Idle screen
Press MENU button, then TOP menu opens.
1 Status
2 SMS
8 Alarm Pack
9 ADMIN
TOP menu screen
Press ▼▲ button to move the cursor, and select [9 ADMIN].
Then press OK button.
Secret Code ?
Secret code setting screen
Enter 4-digit Secret code. The entered characters are hidden by ****.
Secret Code ?
****
1 Setup
2 Port Cont
CS PS READY
ADMIN menu screen
This screen is displayed soon, when the secret code is authenticated.
You have free access to ADMIN menu after this screen is displayed.
Error screen
Error
CS PS READY
Error screen
This message is displayed soon after the secret code is entered wrongly, and the screen returns to Top menu.

Fig. 4.2.1 Mode setting of GUEST/ADMIN user

Note

* Return to Idle screen by pressing CLR button several times to quit ADMIN user mode.

4.2.2 Setting Service type

In this section, setting the Service types for [TEL1] and [TEL2] ports are explained.
Select the Service type of the port with following the terminal device (telephone or FAX) being connected to each port.

Open [9 ADMIN menu] by the sequence of [4.2.1].
Select [2 Port Cont] menu, then [Port Cont setting item selection menu] will open.
Select the port from [TEL1] /[TEL2], and select the service type from [VOICE] (for telephone), or [FAX], and then press **OK** button. The screen returns to [9 ADMIN] screen.

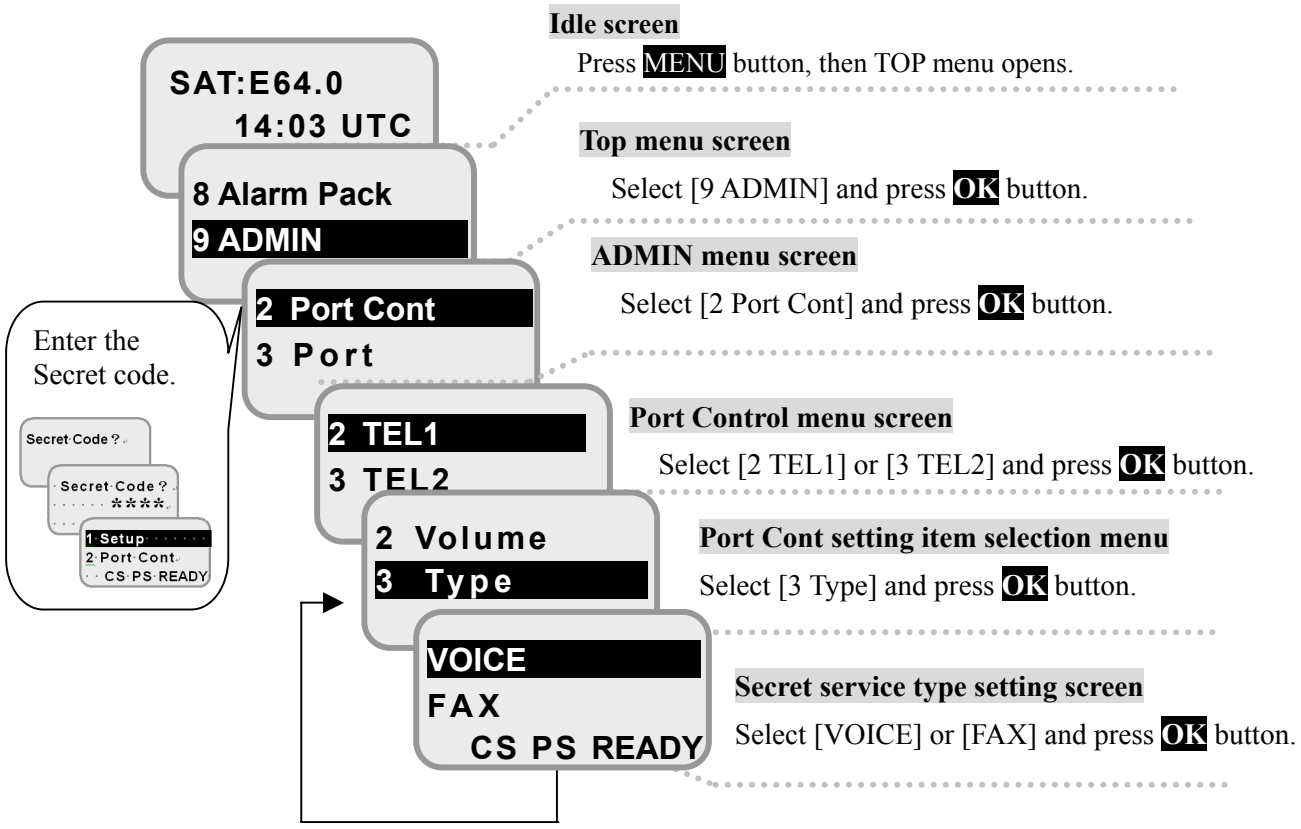


Fig. 4.2.2 Setting service type menu

4.2.3 Satellite display

In this section, setting of Satellite search type is explained. Select [3 Satellite] from [Top menu], and select [1 Satellite] from displayed [Satellite] menu screen.

Current setting is displayed with * mark on its line head.

To change it, move the cursor by ▼▲ buttons, and press OK button.

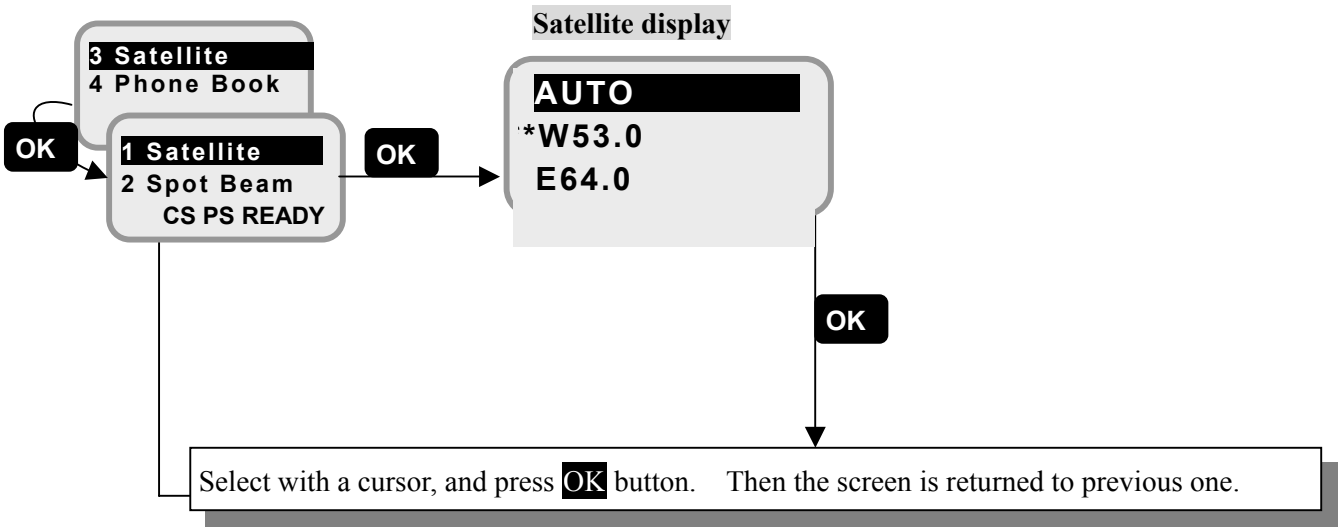


Fig. 4.2.3a Flow of Satellite selection

If the antenna cannot catch the satellite for some reason, "SEARCH NG" is displayed in the lowest line of Handset screen (status area). Select the satellite again.

Fig. 4.2.3b SEARCH NG status of Idle screen

5. How to use the telephone / FAX

In chapter 5.1(p42), the telephone functions with Handset listed below are explained.
(The capped number of each function is the chapter No.)

5.1.1 Making a call/ Answering the phone
5.1.2 Using Phone Book (Speed Dial)
5.1.3 Using Redial menu
5.1.4 Adjusting voice volume and brightness
5.1.5 Adjusting ringer volume/pattern, and voice volume
5.1.6 Holding on the line
5.1.7 Passing a call from Handset to terminal telephone
5.1.8 Using a Secret Code
5.1.9 Entry, change and deletion of Phone Book
5.1.10 Displaying Call Log
5.2 Using telephone/FAX with TEL 1/2 port

In chapter 5.2 (p57), functions using the JUE-250 from FAX or terminal telephone are explained.

Dial-up procedure of the JUE-250

(Available for Handset and terminal telephone)

The telephone number dialed last is memorized in MES. Redialing of telephone is simple. Refer to the procedure below.

Table 5a. Dial-up procedure of the JUE-250

■ Regular calling **00** **Country Code** **Area Code** **Subscriber's number** #

Example) Placing a call to +81-422-45-9111, in Japan→**0081422459111** #

■ Speed Dialing **Speed Dialing number** * #

Example) Calling by a Speed Dial number 05 →**05** * #

■ Redial calling **00** * # (Last dialed number is redialed)

■ Secret Code calling **Secret Code** **00** **Country Code** **Area Code** **Subscriber's number** #

Example) Placing a call with secret code **4321,** to +81-422-45-9111 in Japan. → **4321**008142245911 #

You can carry out the above-mentioned dialing from idle screen of Handset directly.
In the case of Secret Code transmission, release the lock first, then follow the above procedures.

Dial-up procedure for forced setting of service type

Just adding * or * * on the head of dialing sequence, user can easily set the service type (Voice or FAX) to TEL1/2 port, regardless of setup done at [8.9.2.1 Port Cont setting item selection menu (p113)].

This is temporal setting, and available for only transmission (ship to shore).

Table 5b. Dial-up procedure of the JUE-250

Setting Voice service (4kbps Voice) to TEL1/2 port

- Regular calling * **00** **Country Code** **Area Code** **Subscriber's number** #
- Speed Dialing * **Speed Dialing number** #
- Redial calling * **00** * #
- Secret Code calling * **Secret Code** **00** **Country Code** **Area Code** **Subscriber's number** #

Setting FAX service (3.1kHz Audio FAX) to TEL1/2 port

- Regular calling * * **00** **Country Code** **Area Code** **Subscriber's number** #
- Speed Dialing * * **Speed Dialing number** * #
- Redial calling * * **00** * #
- Secret Code calling * * **Secret Code** **00** **Country Code** **Area Code** **Subscriber's number** * #

Before using Handset

You can operate the JUE-250 with the Handset both on-hooked and off-hooked to the cradle.

1. Off-hook the Handset from the cradle(Off-hook mode)

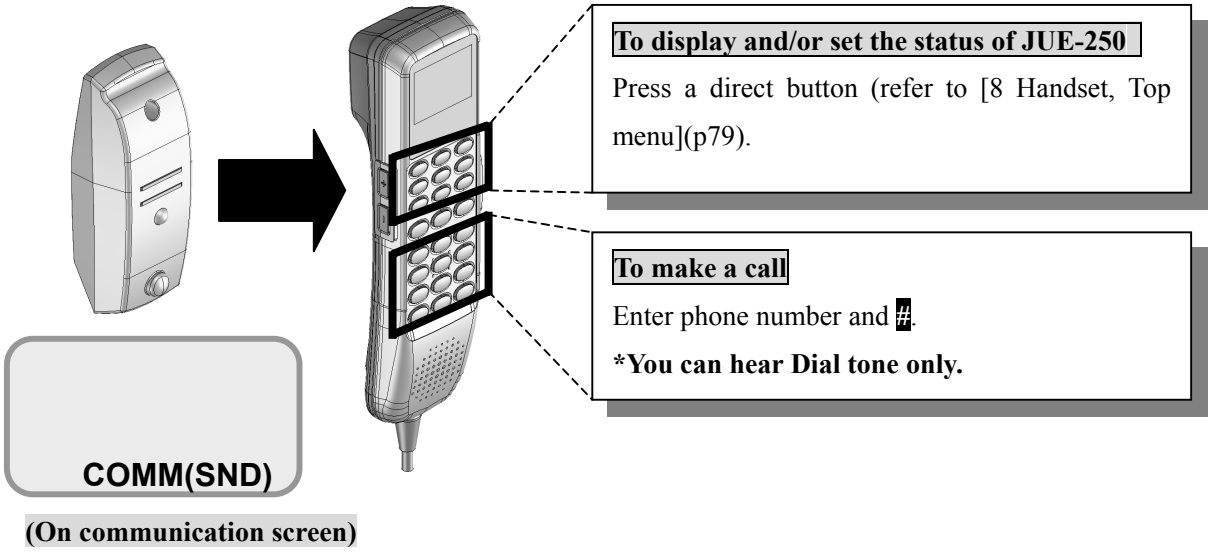

To display and/or set the status of JUE-250
Press a direct button (refer to [8 Handset, Top menu](p79).
To make a call
Enter phone number and #.
*You can hear Dial tone only.
COMM(SND)
(On communication screen)

Fig. 5a Operation on Off-hook mode

2. On-hook the Handset on the cradle(On-hook mode)

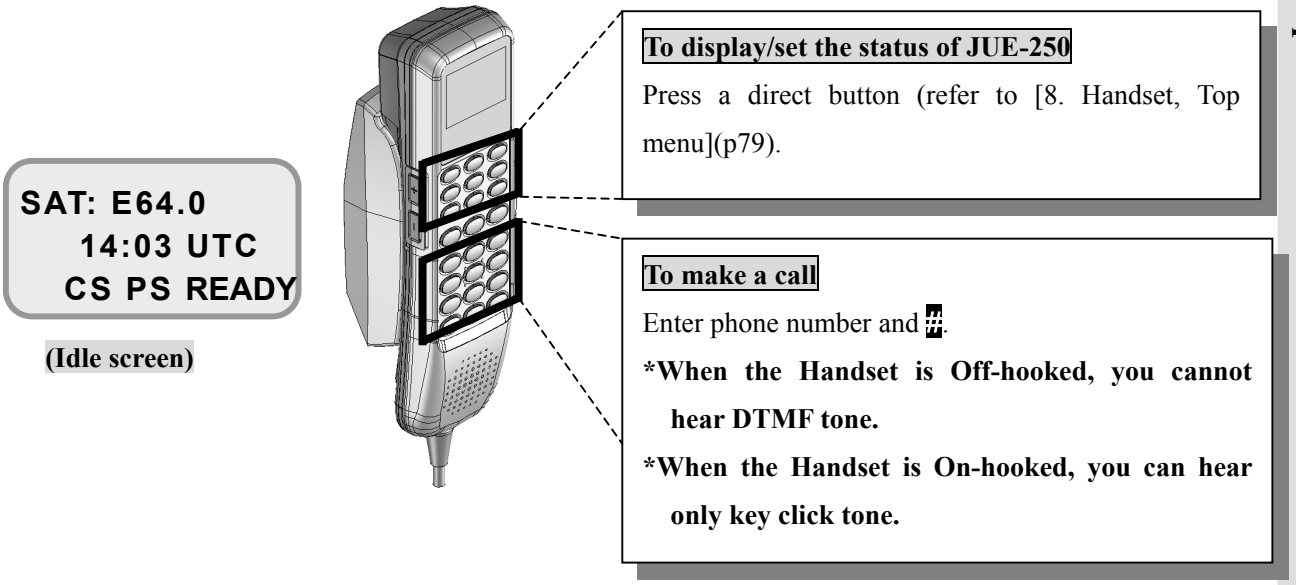

SAT: E64.0
14:03 UTC
CS PS READY
(Idle screen)
To display/set the status of JUE-250
Press a direct button (refer to [8. Handset, Top menu](p79).
To make a call
Enter phone number and #.
*When the Handset is Off-hooked, you cannot hear DTMF tone.
*When the Handset is On-hooked, you can hear only key click tone.

Fig. 5b Operation on On-hook mode

In this Chapter, operations based on the On-hook mode are explained.

5.1 Handset

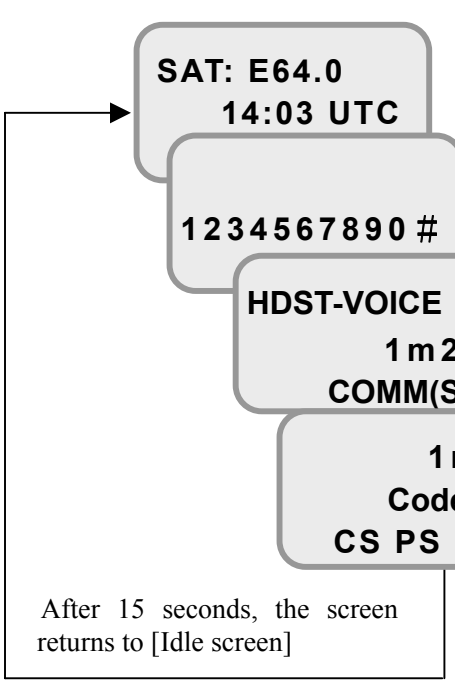
5.1.1 Making a call / Answering the phone

Making a call

Hook off the Handset and press the number followed by # button.

When the party answers the call, [Communication screen] is displayed . Converse with the party.

Return Handset to the cradle when the telephone call ends. [Disconnection screen] is displayed for 15 seconds with Cause Code and duration of communication. After the call has been completed, the display returns to [Idle screen].



Idle screen

[Idle screen] is displayed when Handset is placed on the cradle, and [Dial-waiting screen] is displayed when Handset is off-hooked.
In dialing, do not forget to press # in the end.

Dial-up screen

If the total digit of telephone number exceeds 10, first several digits are not displayed.

On Communication screen

Elapsed time of communication is continually shown until the call is disconnected.
"m" stands for minute(s), "s" stands for second(s).

Communication terminated screen

Return the Handset to the cradle. The total duration is displayed on the right of the first line, and the Cause Code is displayed on the second line.

*Cause Code: 4-digit code. Identities the cause of disconnection.

Fig.5.1.1a Flow of making a call

■Dial-up procedure **00 Country Code Area Code Subscriber's Number #**

Example) Placing a call to +81422-45-9111 in Japan→**0081422459111**

Answering the phone

If the JUE-250 receives a call, ring tone will sound and the screen changes to [Arrival screen].

Take up the Handset from the cradle, then you can talk with the party. The screen will change to [On communication screen]. After the disconnection, return the Handset to the cradle.

Fig.5.1.1b Arrival screen

NOTE

Voice of landside might be distorted or interrupted if the JUE-250 is used under a remarkably noisy environment, for example, in a small and high-speed ship.

5.1.2 Using Phone Book (Speed dial)

Register the phone numbers before the Phone Book (Speed dial) is used.
Refer to [5.1.9 Entry, change and deletion of Phone Book](p52).

To make a call with Speed dial from Handset

Press 📖 button.

[Phone Book address screen] is displayed. This will work with Handset in either On-hook or Off-hook mode.
Scroll the screen with ▼▲ buttons, select the address with the cursor and press OK button.
(It is also available to enter abbreviated number (which have been registered) and pressing OK button.

Example) Placing a call to Mr. SMITH, who has been registered in Phone Book No.06.

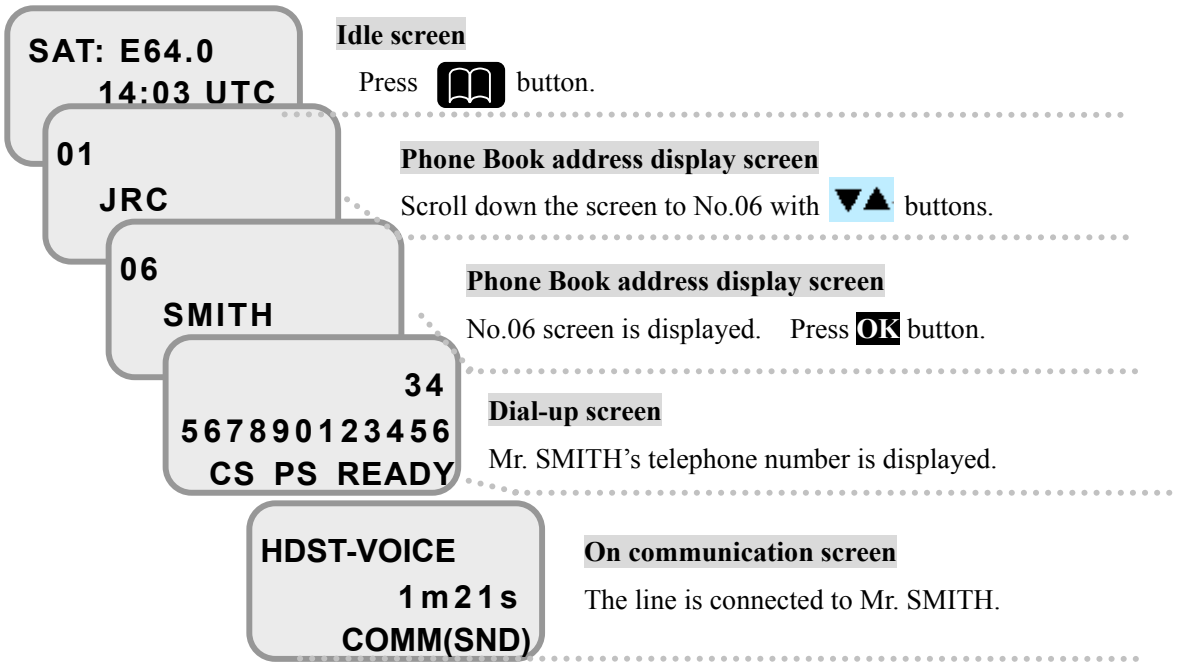


Fig.5.1.2 Flow of using Phone Book (Speed Dial)

Quick procedure for Speed dialing

■ Speed Dialing

Speed Dialing number ✳ #

Example)Placing a call to Speed Dialing No.18→ **18** ✳ #

5.1.3 Using Redial menu

Redial menu displays the dial number of the last 30 calls.

Example) To display 0081-422-45-9111 with the Redial list, scroll through the screen with ▼▲ buttons, and place a call to the number using the Redial function.

Press ▼▲ buttons with the display on [Idle screen], the screen will change to [Redial List screen].

Press ▼▲ buttons until desired dial number is displayed.

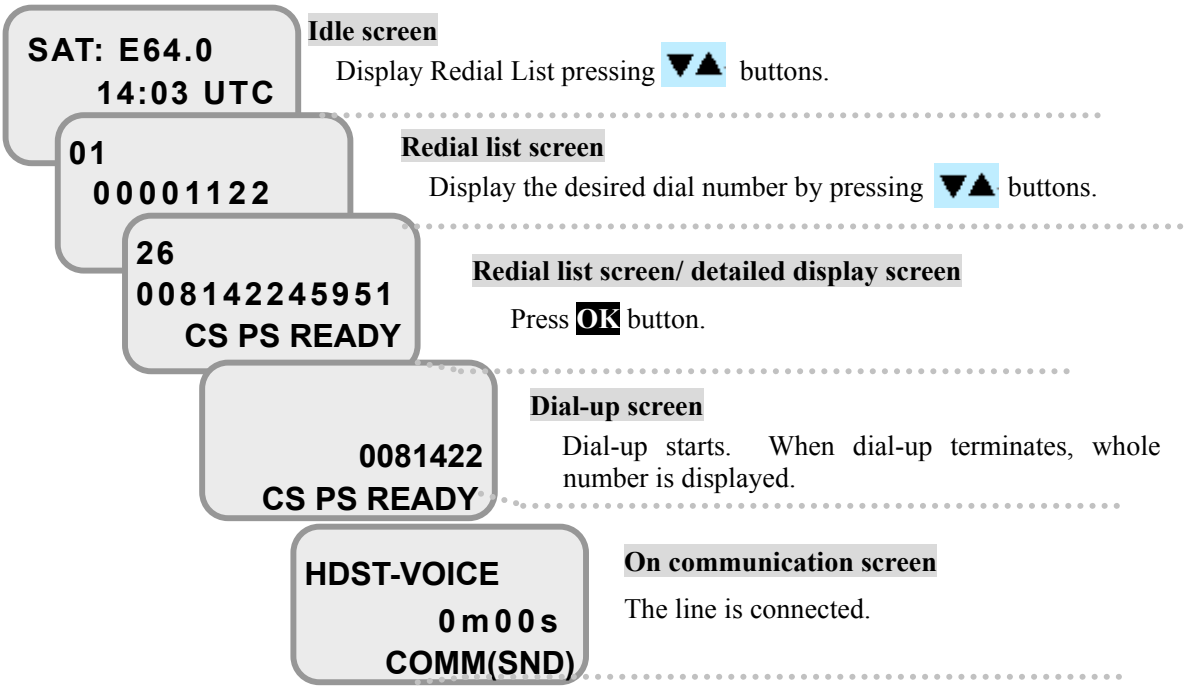


Fig.5.1.3 Flow of using Redial menu

5.1.4 Adjusting voice volume, screen brightness, and ringer volume

Quick adjustment of voice volume (Handset status: Off- hook mode)

To adjust the voice volume, press ⊞⊟ buttons on the left side of the Handset, during the communication.

Quick adjustment of screen brightness (Handset status: On- hook mode)

To adjust the brightness of the screen, press ⊞⊟ buttons on the left side of the Handset, with the Handset placed on the cradle. If the Handset is off-hooked, adjust in the same way after pressing MENU buttons.

Quick adjustment of ringer volume (Handset status: On- hook mode)

To adjust the ringer volume, press ⊞⊟ buttons on the left side of the Handset, while it is ringing.

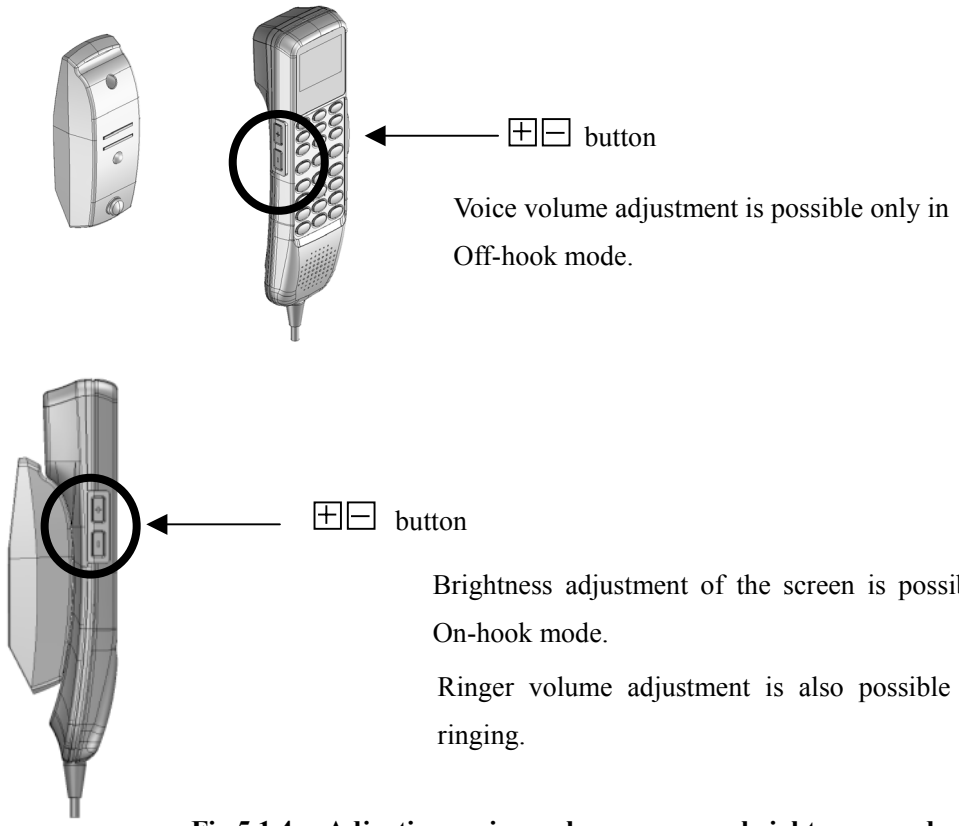

⊞⊟ button
Voice volume adjustment is possible only in Off-hook mode.
⊞⊟ button
Brightness adjustment of the screen is possible only in On-hook mode.
Ringer volume adjustment is also possible while it is ringing.

Fig.5.1.4 Adjusting voice volume, screen brightness, and ringer volume from Handset

These adjustments are absolutely temporary.

To adjust them firmly, refer to the [5.1.5 Adjusting ringer volume and pattern, and voice volume](p46).

5.1.5 Adjusting ringer volume and pattern, and voice volume

(ADMIN user only)

Adjusting the ringer volume (in Port menu screen)

Ringer volume can be adjusted from the menu of the Handset.

Refer to below flow chart, open the menu screens and begin setup (factory values are TBD).

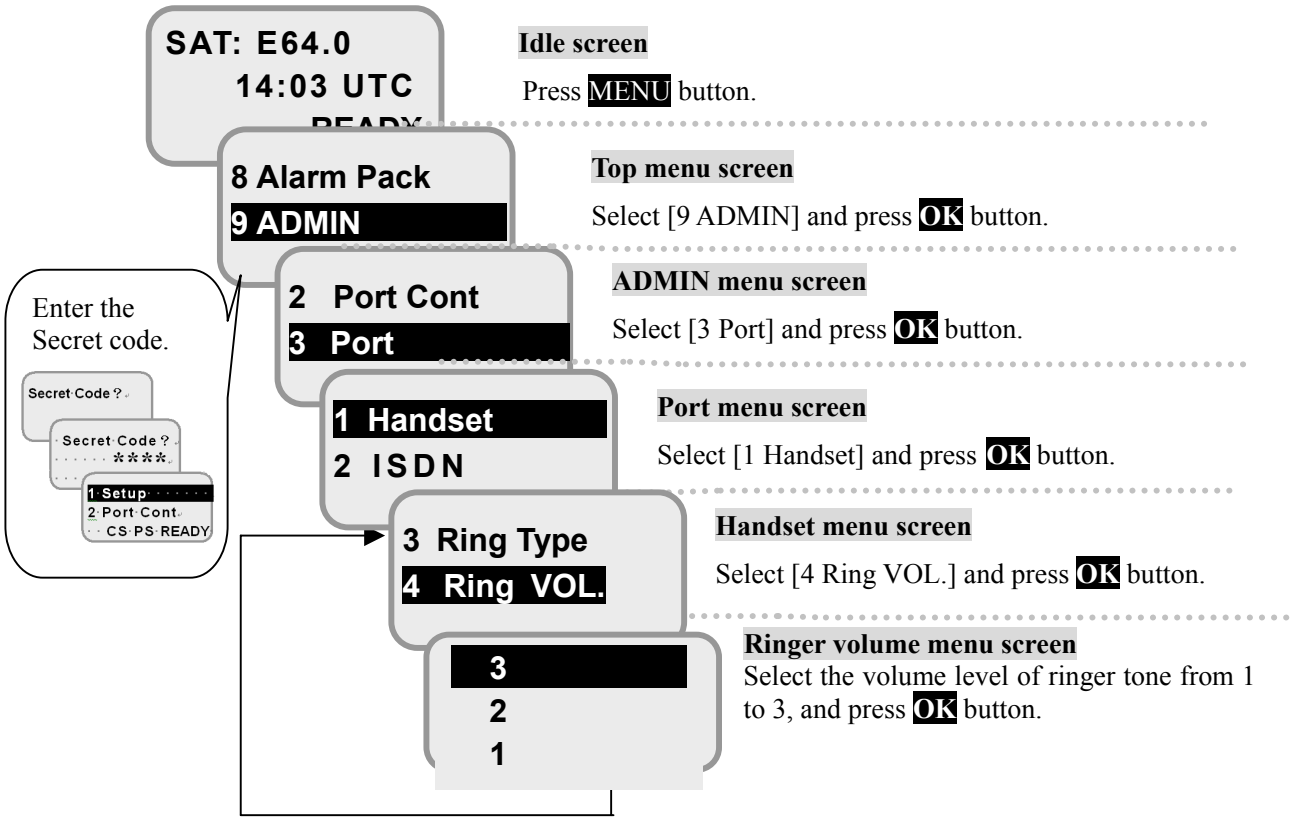


Fig.5.1.5a Flow of setting ringer volume

Selecting the Ring Type (in Port menu screen)

The pattern of ringer tone can be selected from six types, in the same way as above.

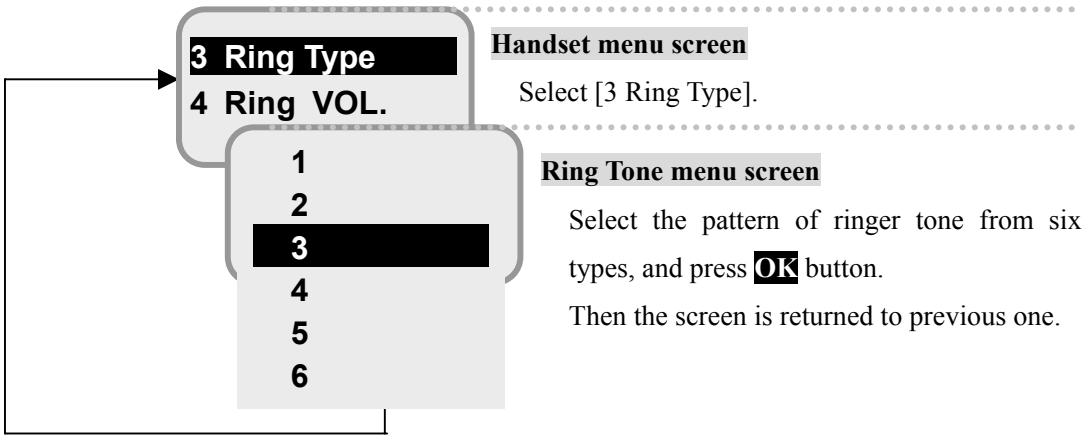


Fig.5.1.5b Flow of setting pattern of Ring Type

Adjusting the voice volume and the screen brightness

Voice volume can be adjusted using the ⊞⊟ buttons on the left side of Handset (refer to [5.1.4 Adjusting voice volume and the screen brightness](p45).

To change the default voice volume, follow the way shown below.

Setting voice volume from Handset screen (in Port menu screen)

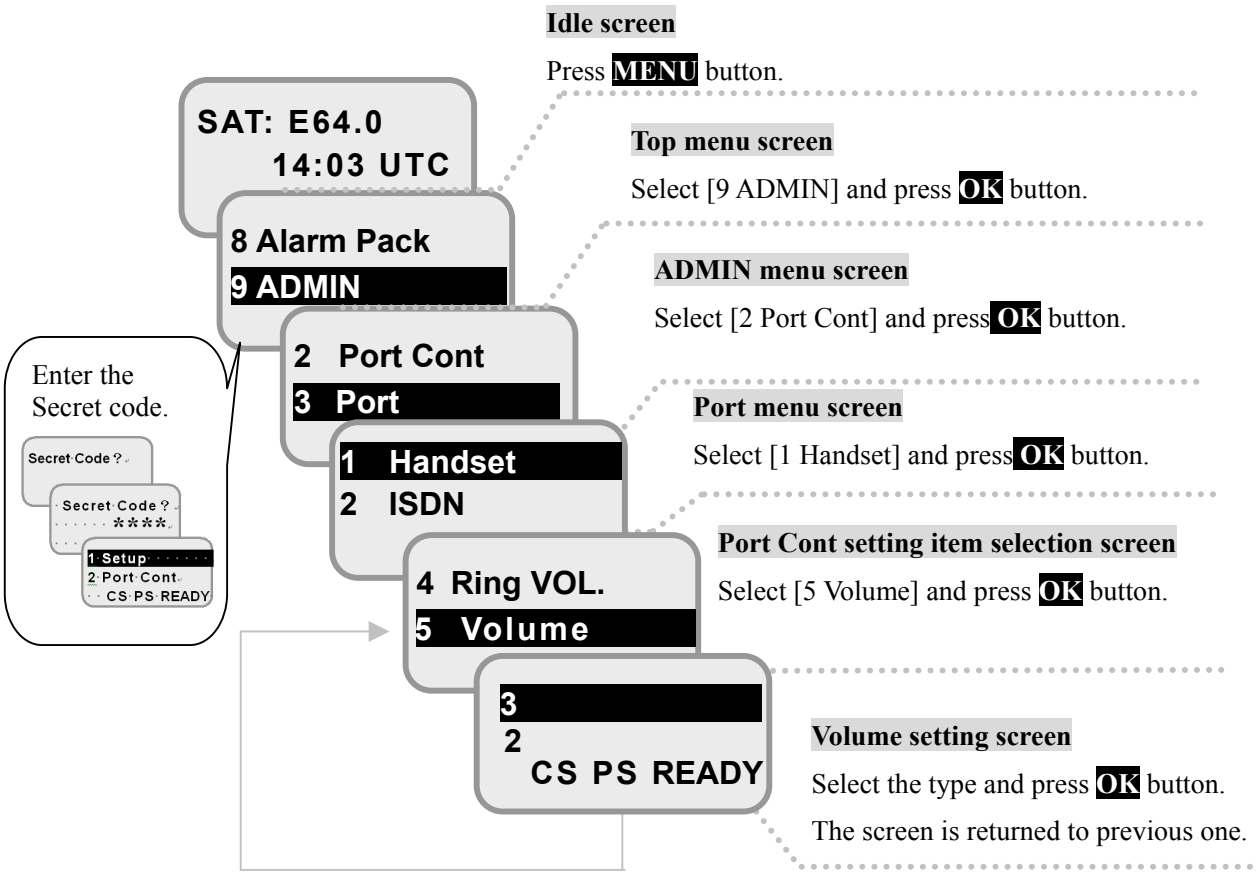


Fig.5.1.5c Flow of setting voice volume

Setting backlight brightness (in Port Menu screen)

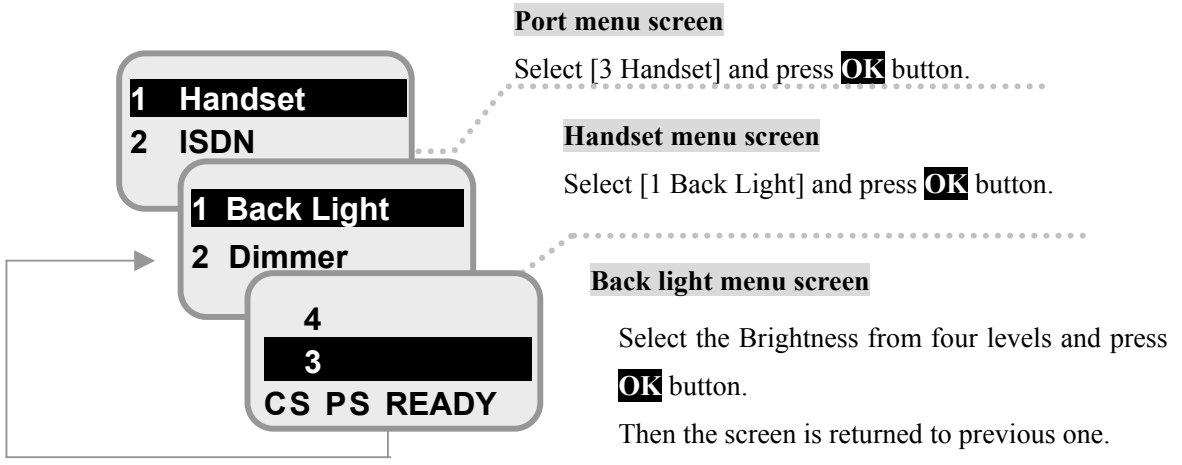

Port menu screen
Select [3 Handset] and press OK button.
1 Handset
2 ISDN
Handset menu screen
Select [1 Back Light] and press OK button.
1 Back Light
2 Dimmer
Back light menu screen
Select the Brightness from four levels and press OK button.
Then the screen is returned to previous one.
4
3
CS PS READY

Fig.5.1.5d Flow of setting backlight brightness

5.1.6 Holding on the line

To hold on, press the **Off-hook** button ( ) of the Handset. To restart conversation, press it again.

*The line is not disconnected even the Handset is returned to the cradle, when this button is pressed.

*When a call is held on, the party cannot hear your voice, but you can hear the party's.

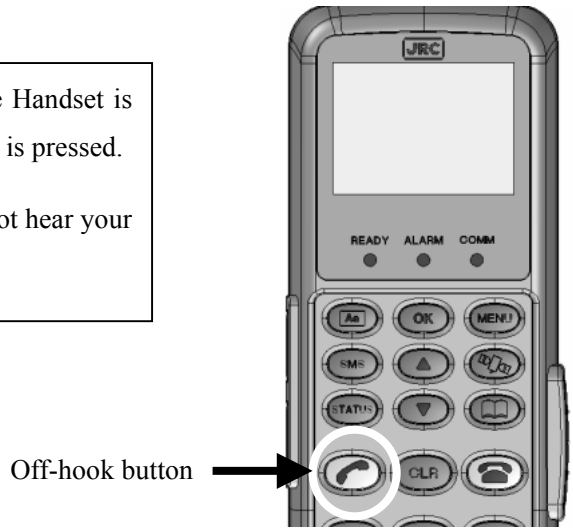


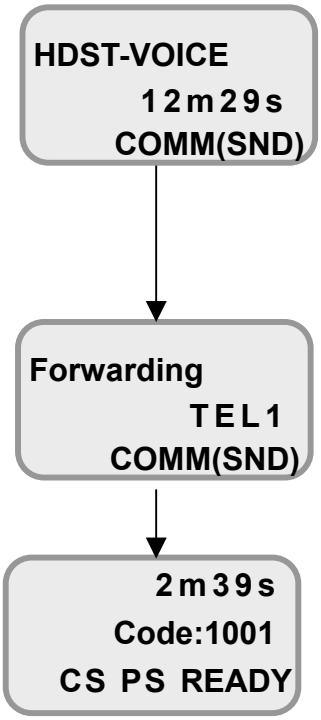
Fig.5.1.6 Hold on the line (by Off-hook button)

5.1.7 Passing a call from Handset to terminal telephone

To pass a call to one of the terminal telephones (connected to BDE), press the extension number during communication.

Extension numbers of the JUE-250 are designated as follows.

Terminal telephone connected with TEL port 1…..#+1.
Terminal telephone connected with TEL port 2…..#+2.
Handset…….....……#+3.



On communication screen

Press the **extension number**(to be transferred). Press **# 1** to transfer to the terminal telephone connected with TEL port 1.

Press **# 2** to transfer the telephone connected with TEL port 2 .

Press the on-hook button ( ) or place the Handset on the cradle, after you heard the beep tone.

Forwarding screen (during ringing)

Ring tone sounds on both of Handset and transferred terminal telephone. The screen will change to [Forwarding screen], and then forwarded distination (TEL1 or TE2) is displayed.

Disconnection screen

When the forwarded distination disconnects the line, the screen will change to [Disconnection screen], and then Cause Code and total duration is displayed.

Fig.5.1.7 Flow of transferring a call from Handset to one of the terminal telephones

Table 5.1.7. Forwarding key operation list

Object	Operation	Performance
Forwarding to TEL1	#+1+[On-hook]	TEL1 is called up
Forwarding to TEL2	#+2+[On-hook]	TEL2 is called up
Forwarding to Handset	#+3+[On-hook]	Handset is called up
(Invalid input→ Forwarding mode cancel)	#+4 to 9, or 0	Forwarding mode is cancelled and returned to [on communication status]
Canceling forwarding mode	#+*	Forwarding mode is cancelled and returned to [on communication status]
(Continuing Forwarding mode)	#+#	Continuing forwarding mode (beep tone does not sound), and waiting the input of numeric key of 1 to 3.

5.1.8 Using a Secret Code

Setup procedure

Turn on the Secret Code

To use the Secret Code, port setting is required.

Note

Once the Secret Code is set on a telephone terminal, call without entering Secret Code is impossible. (Only receiving a call is possible).

To make it possible, unlock the setting.

Carry out below procedure.

(Repeat the same procedure for other terminals if Secret Code setup is required for them.)

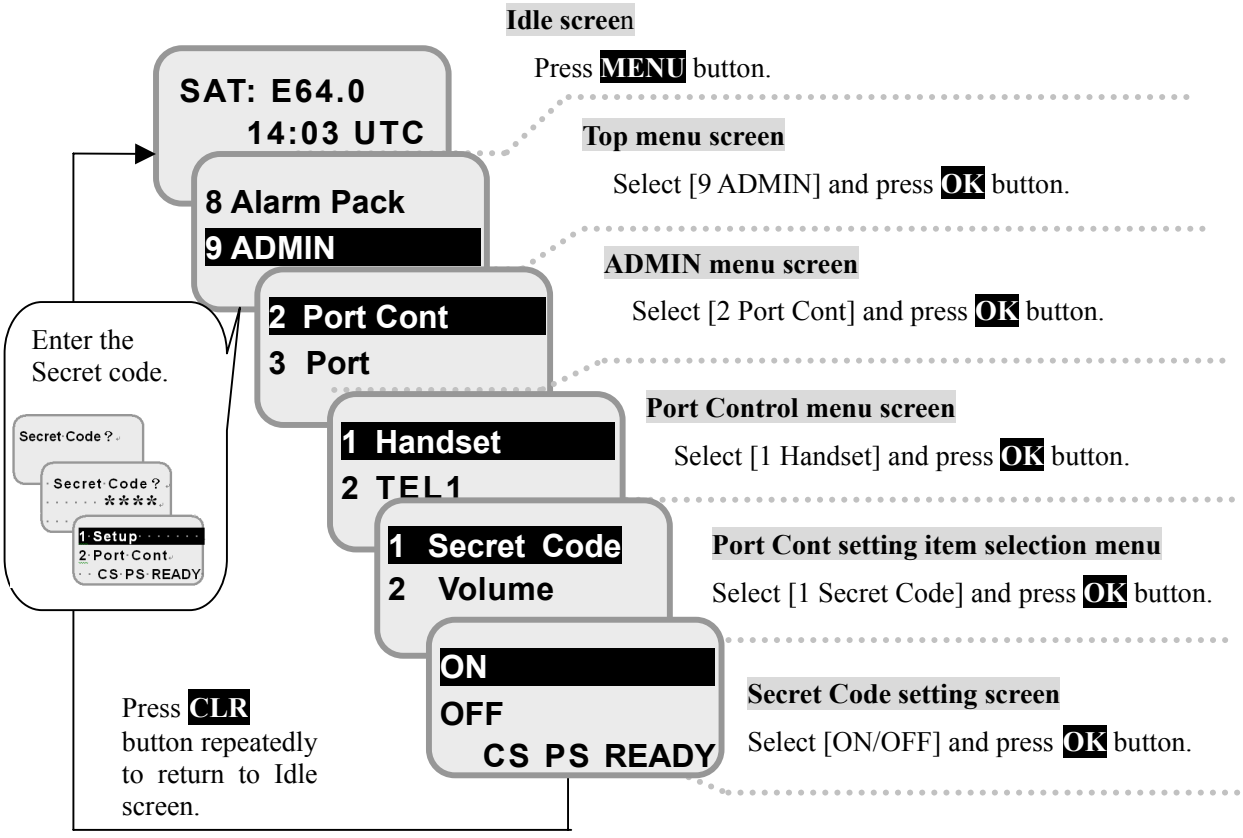


Fig.5.1.8a Flow of setting the Secret Code

Operation is locked up when you returned to TOP menu again.

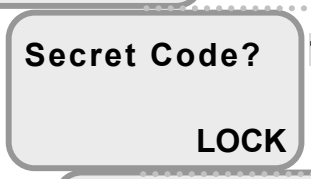
You can operate on other screens until then.

Secret Code calling

*If you have not set up the Secret Code, open previous page and set it up.

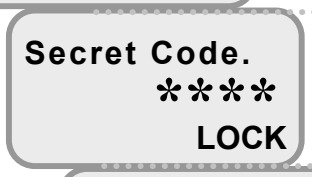
Idle screen (terminal locked)

Press any button. [LOCK] is appeared the place where usually [CS PS READY] is displaying.



Terminal locked (before entering secret code)

All operations are locked.
Enter 4-digit Secret Code.



Terminal locked (after entered secret code)

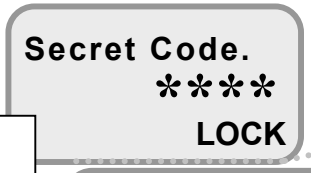
Entered numbers are hidden by ****, then press **OK** button.

Idle screen (returned)

[CS PS READY] is shown at the bottom..
To place a call, follow the regular procedure.

Fig.5.1.8b Operating flow of Secret Code call

If an incorrect Code is entered



Entered Secret Code is incorrect.

Entry error

Idle screen (returned)

Verify your Secret Code, and enter the correct Code again.

Fig.5.1.8c Screen transition when entered Secret Code is incorrect

***The screen transition is same to entering correct Secret Code, but when any button is pressed, it turns to the Terminal Locked screen.**

5.1.9 Entry, change and deletion of Phone Book

■ **Telephone number entry**

Calling procedure with Speed Dial number is explained at [5.1.2 Using Phone Book (Speed Dial)](p43). Maximum 50 Speed Dial numbers can be registered. The procedures of registration and setting are explained below.

Example) Entering a phone number to Speed Dial No.25.
(Name) JOHN (Phone Number) 012345678901234

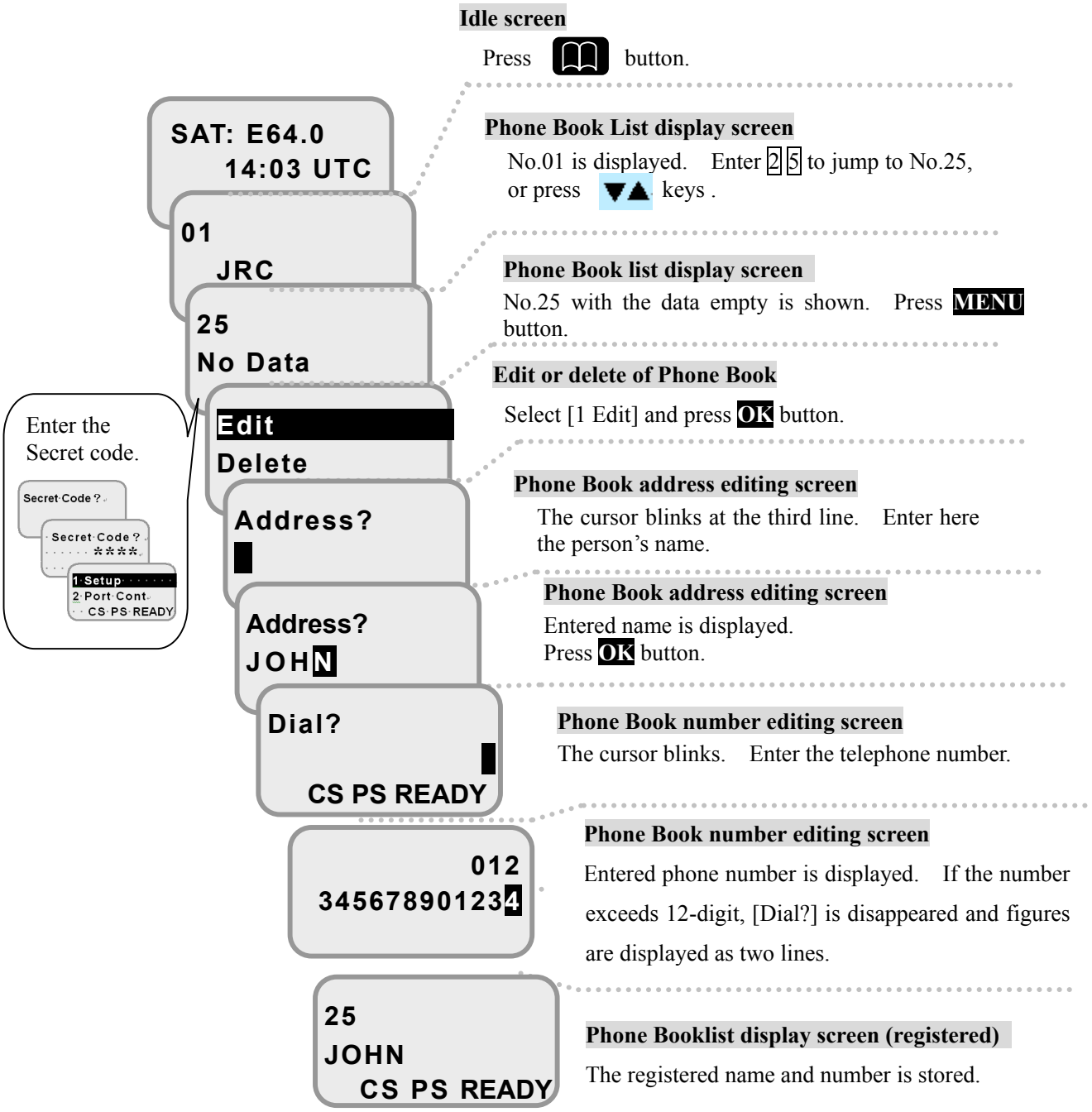
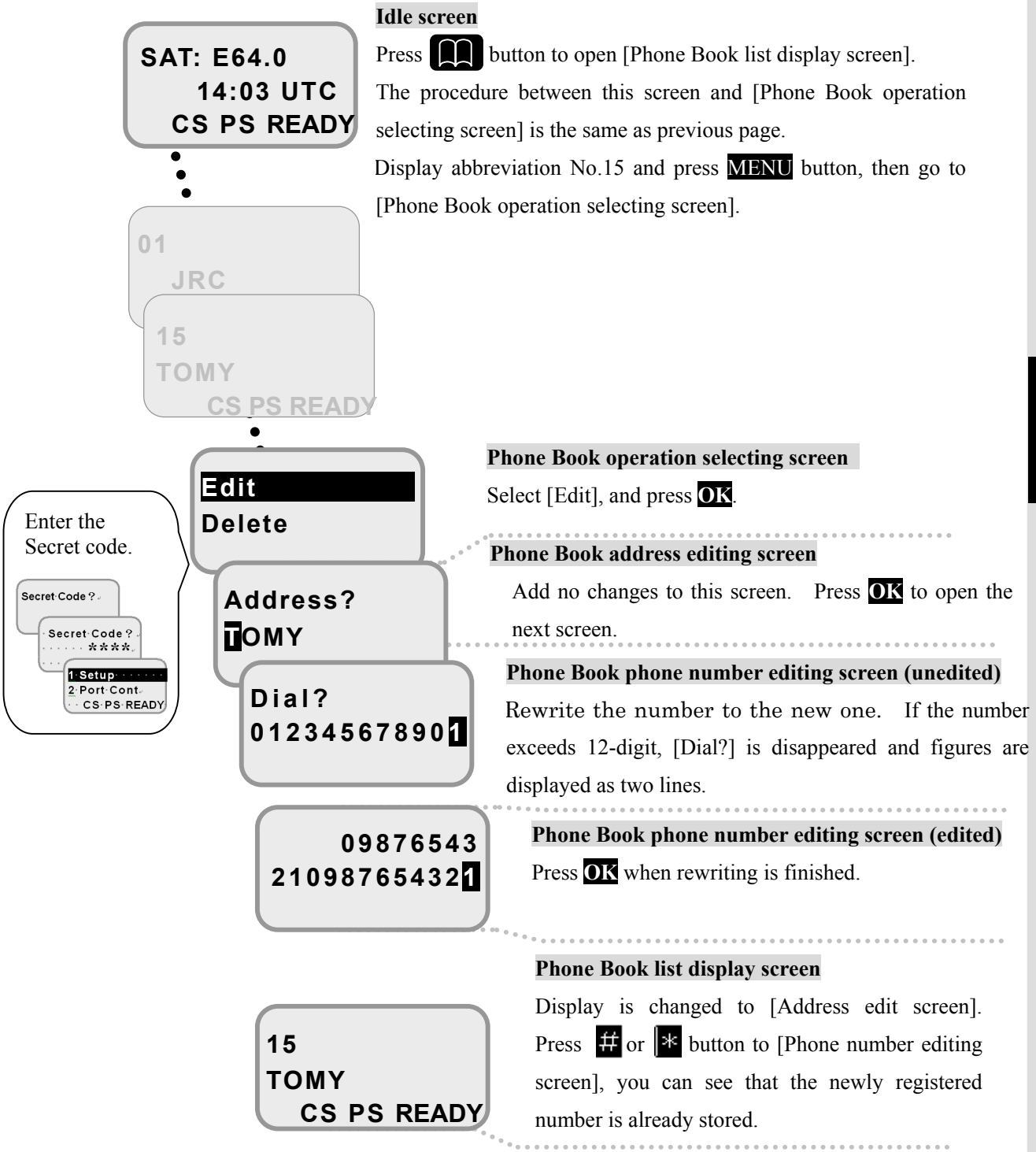


Fig.5.1.9a Flow of telephone number registration to Phone Book

■Changing party name and telephone number

Example) Speed Dial number: 15, person's name: TOMY, phone number: 0123456789.
Change the phone number to 09870987654321098765.



Idle screen

Press 📖 button to open [Phone Book list display screen].
The procedure between this screen and [Phone Book operation selecting screen] is the same as previous page.
Display abbreviation No.15 and press MENU button, then go to [Phone Book operation selecting screen].

Phone Book operation selecting screen

Select [Edit], and press OK.

Phone Book address editing screen

Add no changes to this screen. Press OK to open the next screen.

Phone Book phone number editing screen (unedited)

Rewrite the number to the new one. If the number exceeds 12-digit, [Dial?] is disappeared and figures are displayed as two lines.

Phone Book phone number editing screen (edited)

Press OK when rewriting is finished.

Phone Book list display screen

Display is changed to [Address edit screen]. Press # or * button to [Phone number editing screen], you can see that the newly registered number is already stored.

Fig.5.1.9b Flow of changing telephone number and name on Phone Book

■Deleting data

When [Delete] is selected on the [Phone Book operation screen], the data selected is deleted at once and the screen turns to the [Phone Book address/Telephone number screen] with no data.

Example) Deleting Speed Dial No.08, company's name "RRC".

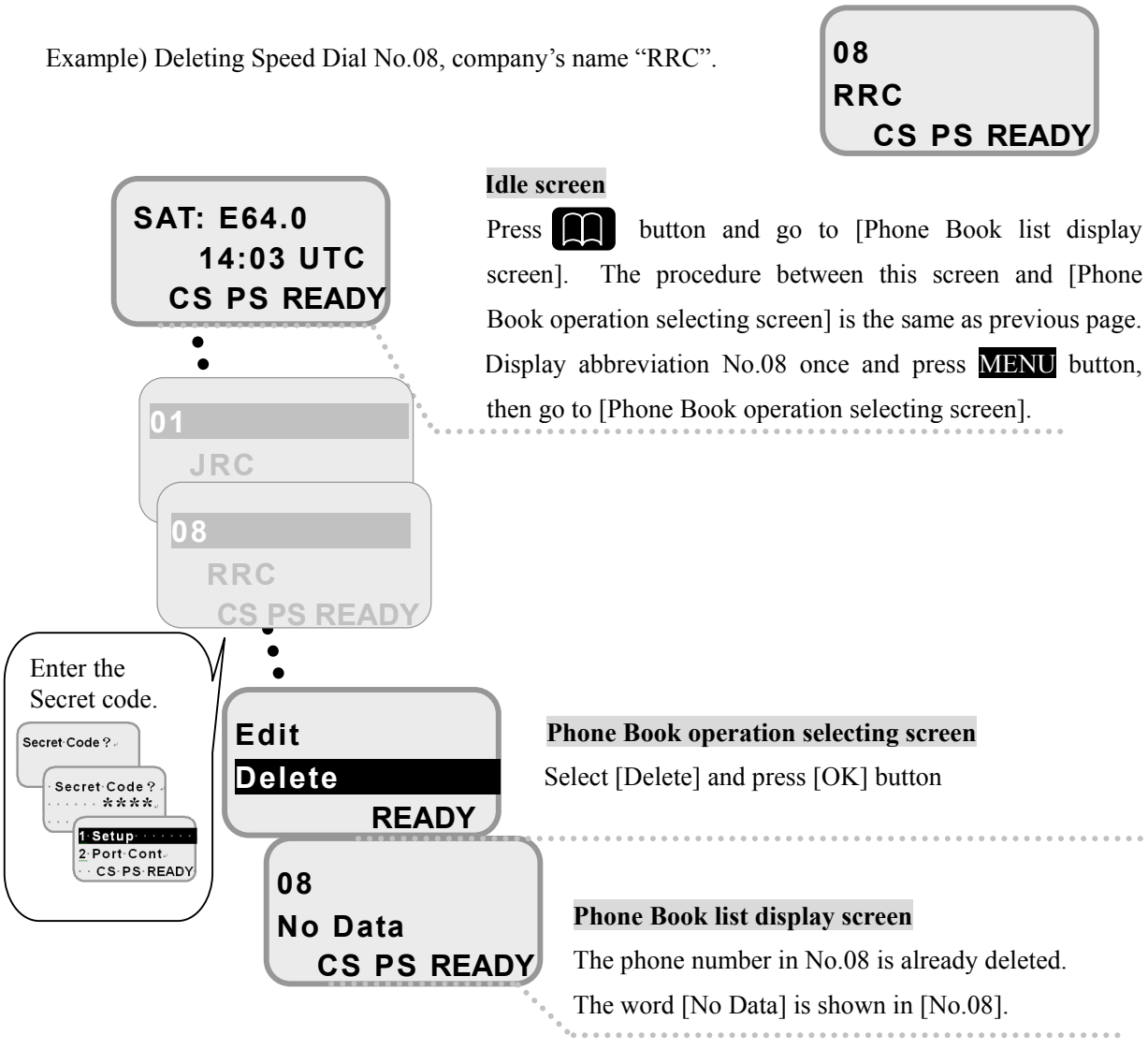

08
RRC
CS PS READY
SAT: E64.0
14:03 UTC
CS PS READY
Idle screen
Press button and go to [Phone Book list display screen]. The procedure between this screen and [Phone Book operation selecting screen] is the same as previous page. Display abbreviation No.08 once and press MENU button, then go to [Phone Book operation selecting screen].
01
JRC
08
RRC
CS PS READY
Enter the Secret code.
Secret Code ?
Secret Code ?
****
1 Setup
2 Port Cont
CS PS READY
Edit
Delete
READY
Phone Book operation selecting screen
Select [Delete] and press [OK] button
08
No Data
CS PS READY
Phone Book list display screen
The phone number in No.08 is already deleted.
The word [No Data] is shown in [No.08].

Fig.5.1.9c Flow of deleting data on Phone Book

5.1.10 Displaying Call Log

Call Log (Call Logging History) stores maximum 100 records of outgoing/incoming calls.

1. VOICE	Making and receiving a call from/to Handset or terminal telephone connected to TEL1/2 or ISDN port
2. FAX	Sending and receiving a facsimile from/to the fax connected to TEL1/2, or ISDN port
3. STANDARD	Sending and receiving data from/to the PC connected to USB, or Ethernet port with using Standard IP service
4. STREAMING	Sending and receiving data from/to the PC connected to USB, or Ethernet port with using Streaming IP service
5. SMS	Sending and receiving a SMS from/to the PC connected to USB, Ethernet, , or Handset port

Calls are classified into three transmission types, BOTH (send and receive transmission), SND (send only), and RCV (receive only).

To check the contents, follow the instruction shown in next page.

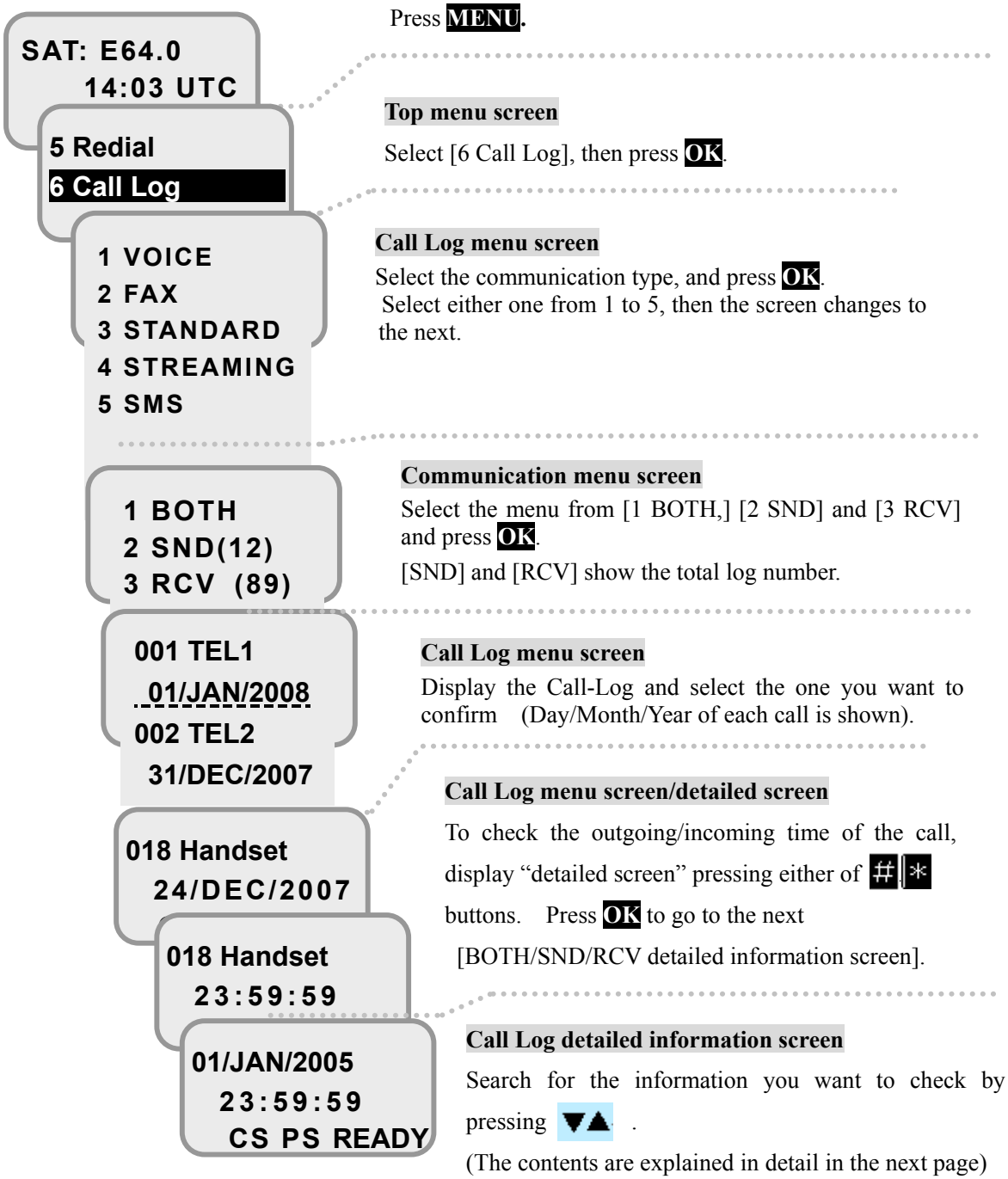
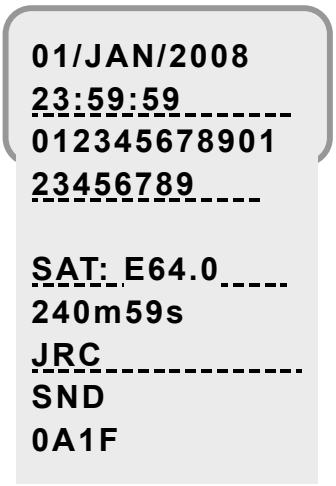

SAT: E64.0
14:03 UTC
5 Redial
6 Call Log
1 VOICE
2 FAX
3 STANDARD
4 STREAMING
5 SMS
1 BOTH
2 SND(12)
3 RCV (89)
001 TEL1
01/JAN/2008
002 TEL2
31/DEC/2007
018 Handset
24/DEC/2007
018 Handset
23:59:59
01/JAN/2005
23:59:59
CS PS READY
Idle screen
Press MENU.
Top menu screen
Select [6 Call Log], then press OK.
Call Log menu screen
Select the communication type, and press OK.
Select either one from 1 to 5, then the screen changes to the next.
Communication menu screen
Select the menu from [1 BOTH,] [2 SND] and [3 RCV] and press OK.
[SND] and [RCV] show the total log number.
Call Log menu screen
Display the Call-Log and select the one you want to confirm (Day/Month/Year of each call is shown).
Call Log menu screen/detailed screen
To check the outgoing/incoming time of the call, display "detailed screen" pressing either of # * buttons. Press OK to go to the next [BOTH/SND/RCV detailed information screen].
Call Log detailed information screen
Search for the information you want to check by pressing ▼▲ .
(The contents are explained in detail in the next page)

Fig.5.1.10a Flow of displaying Call Log

Call Log detailed information screen (VOICE/FAX service is selected)



…. Day/Month/Year of the call
... Hour/Second/Minute of the call
....Party's telephone number (maximum 21-digit)

....Satellite used
....Communication duration
....Secret Code User's Name*
....Either sent/received data is displayed
....4-digit Cause code

Fig.5.1.10b Call Log detailed information screen (VOICE/FAX service is selected)

***** Secret Code User's name is displayed for Secret Code transmission only.
When Secret Code is not used, it displays only [----].
The contents of Call Log detailed information screen are difference depending on the service.

5.2 Using telephone/FAX with TEL1/2 port

The telephone number dialed last is memorized in MES. Redialing of telephone is simple. Refer to the procedure below.

Table 5.2a. Dial-up procedure of the JUE-250

Dial-up procedure of the JUE-250 (Available for Handset and terminal telephone)

■ Regular calling **00 Country Code Area Code Subscriber's number #**
Example) Placing a call to +81-422-45-9111, in Japan→**0081422459111#**

■ Speed Dialing **Speed Dialing number * #**
Example) Calling by a Speed Dialing number 05 →**05 * #**

■ Redial calling **00 * #** (Last dialed number is redialed)

■ Secret Code calling **Secret Code 00 Country Code Area Code Subscriber's number #**
Example) Placing a call with secret code **4321,** to +81-422-45-9111 in Japan. →**4321**0081422459111**#**

You can carry out the above-mentioned dialing from idle screen of Handset directly.
In the case of Secret Code transmission, release the lock first, then follow the above procedures.

Dial-up procedure for forced setting of service type

Just adding * or * * on the head of dialing sequence, user can easily set the service type (Voice or FAX) to TEL1/2 port, regardless of setup done at [8.9.2.1 Port Cont setting item selection menu (p113)].

This is temporal setting, and available for only transmission (ship to shore).

Table 5.2b. Dial-up procedure of the JUE-250

- **Setting Voice service (4kbps Voice) to TEL1/2 port**

■ Regular calling * 00 **Country Code** **Area Code** **Subscriber's number** #

■ Speed Dialing * **Speed Dialing number** #

■ Redial calling * 00 * #

■ Secret Code calling * **Secret Code** 00 **Country Code** **Area Code** **Subscriber's number** #

- **Setting FAX service (3.1kHz Audio FAX) to TEL1/2 port**

■ Regular calling * * 00 **Country Code** **Area Code** **Subscriber's number** #

■ Speed Dialing * * **Speed Dialing number** * #

■ Redial calling * * 00 * #

■ Secret Code calling * * **Secret Code** 00 **Country Code** **Area Code** **Subscriber's number** * #

The content of above-mentioned table is the same as the one of the first page of this chapter, table 5a.

6. PC connection and LaunchPad calling

The procedure for initiation from the Handset has been explained in Chapter 4.2.(p35).

This section explains the connection for USB and Ethernet port to PCs, and procedures for making a call using LaunchPad. Install the LaunchPad into your PC from attached CD-ROM, before you use LaunchPad at [6.3 Making a call using LaunchPad].

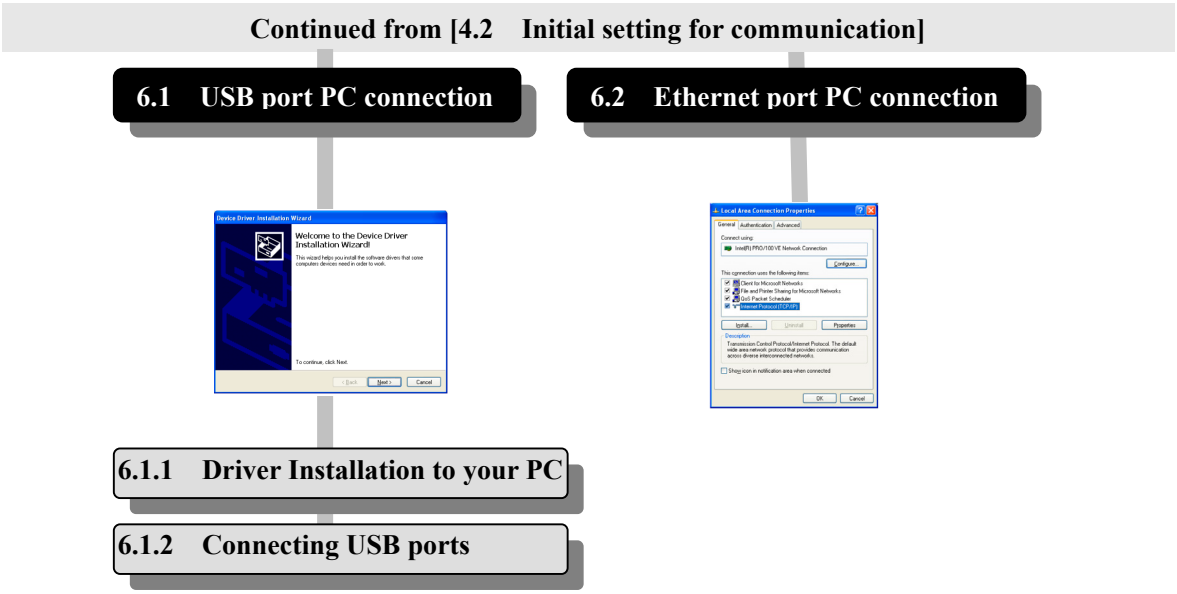

Continued from [4.2 Initial setting for communication]
6.1 USB port PC connection
6.2 Ethernet port PC connection
Welcome to the Device Driver Installation Wizard!
6.1.1 Driver Installation to your PC
6.1.2 Connecting USB ports

Fig.6a Flow of [USB/Ethernet port PC connection]

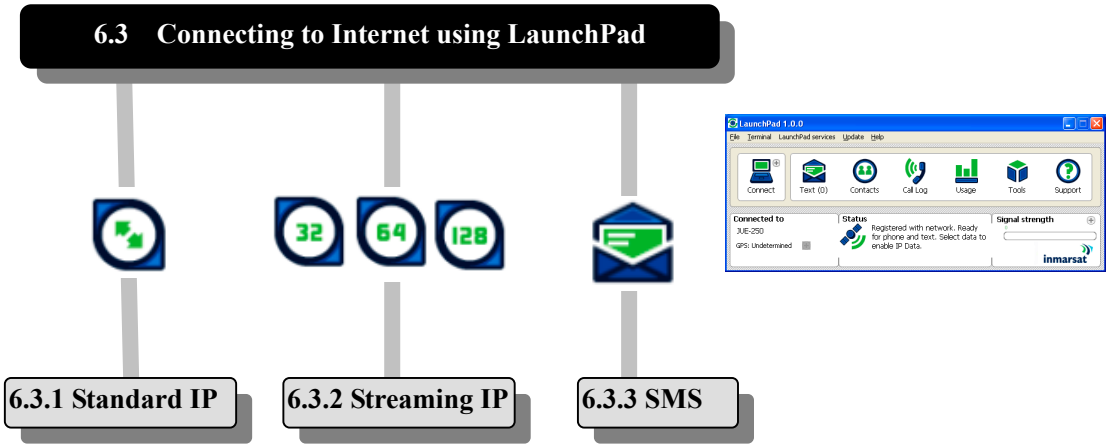


Fig.6b Flow of [Connecting to Internet using LaunchPad]

In this Chapter, Windows XP is supposed to be used.

6.1 USB port PC connection

To connect PC with JUE-250 USB port, below works are required.

1. Driver installation (attached CD-ROM is used)
2. Connecting the USB ports (main unit port to PC port)

> Note
>
> ・ The USB connection is displayed as a network (LAN) connection on your PC. The IP address range is the same as described in [6.2 Ethernet port PC connection, IP addressing on the JUE-250](p67)

6.1.1 Driver installation to your PC

> Note
>
> ・ Do not connect USB ports of main unit and PC, until [1. Driver installation] is terminated.
>
> ・ The user who execute below works should log-in with the authority belongs to Administrator group of the PC network.

1. Set the attached CD-ROM into CD-ROM drive of your PC.

2. Double click [JapanRadio-jpblan-jpfilt-1145-1001-02-03-03-36.exe] in the CD-ROM.

3. [Installer Language] window is displayed.

Select ”English” and click [OK].

Fig.6.1.1a [Installer Language] window

4. [License Agreement] window is displayed.

Click [I Agree].

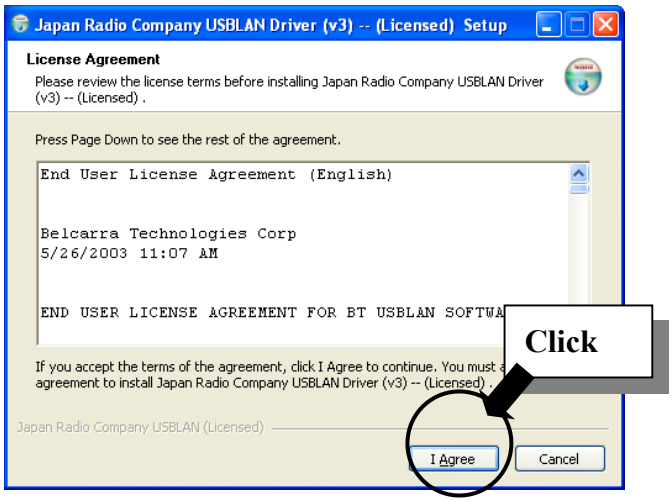

Japan Radio Company USBLAN Driver (v3) -- (Licensed) Setup
License Agreement
Please review the license terms before installing Japan Radio Company USBLAN Driver (v3) -- (Licensed) .
Press Page Down to see the rest of the agreement.
End User License Agreement (English)
Belcarra Technologies Corp
5/26/2003 11:07 AM
END USER LICENSE AGREEMENT FOR BT USBLAN SOFTWA
Click
If you accept the terms of the agreement, click I Agree to continue. You must
agreement to install Japan Radio Company USBLAN Driver (v3) -- (Licensed) .
Japan Radio Company USBLAN (Licensed)
I Agree
Cancel

Fig.6.1.1b [Installer Language] window

5. [Choose Install Location] window is displayed.

Click [Next].

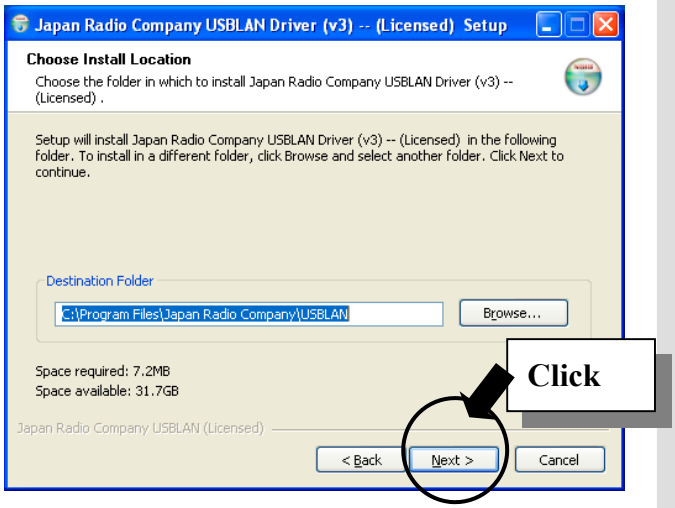

Japan Radio Company USBLAN Driver (v3) -- (Licensed) Setup
Choose Install Location
Choose the folder in which to install Japan Radio Company USBLAN Driver (v3) -- (Licensed) .
Setup will install Japan Radio Company USBLAN Driver (v3) -- (Licensed) in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.
Destination Folder
C:\Program Files\Japan Radio Company\USBLAN
Browse...
Space required: 7.2MB
Space available: 31.7GB
Japan Radio Company USBLAN (Licensed)
< Back
Next >
Cancel
Click

Fig.6.1.1c [Choose Install Location] window

6. [Choose Components] window is displayed.

Click [Install].

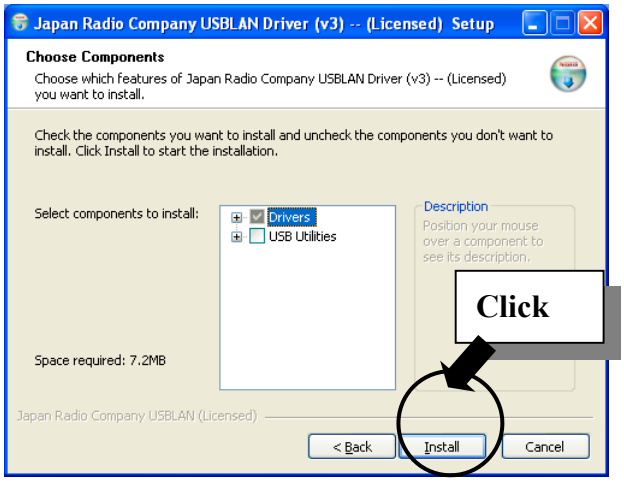

Japan Radio Company USBLAN Driver (v3) -- (Licensed) Setup
Choose Components
Choose which features of Japan Radio Company USBLAN Driver (v3) -- (Licensed) you want to install.
Check the components you want to install and uncheck the components you don't want to install. Click Install to start the installation.
Select components to install:
Drivers
USB Utilities
Description
Position your mouse over a component to see its description.
Space required: 7.2MB
Japan Radio Company USBLAN (Licensed)
< Back
Install
Cancel
Click

Fig.6.1.1d [Choose Components] window

7. [Installing] window is displayed and installation is started.

Wait until the end of installation is shown.

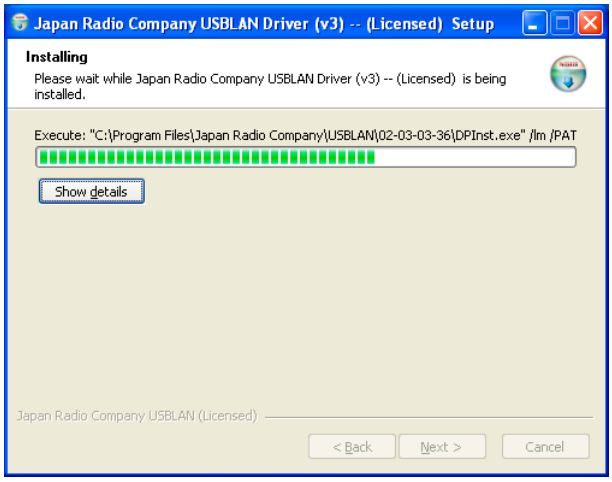

Japan Radio Company USBLAN Driver (v3) -- (Licensed) Setup
Installing
Please wait while Japan Radio Company USBLAN Driver (v3) -- (Licensed) is being installed.
Execute: "C:\Program Files\Japan Radio Company\USBLAN\02-03-03-36\DPInst.exe" /lm /PAT
Show details
Japan Radio Company USBLAN (Licensed)
< Back
Next >
Cancel

Fig.6.1.1e [Installing] window

8. [Welcome to the Device Driver Installation Wizard!] window is displayed.

Click [Next].

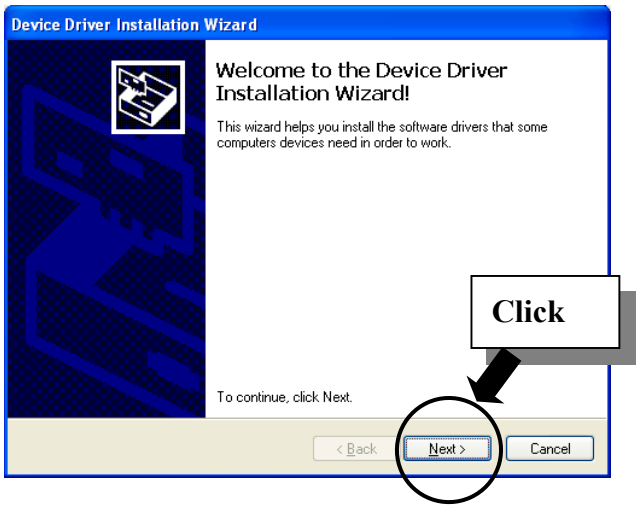

Device Driver Installation Wizard
Welcome to the Device Driver Installation Wizard!
This wizard helps you install the software drivers that some computers devices need in order to work.
To continue, click Next.
< Back
Next >
Cancel
Click

Fig.6.1.1f [Welcome to the Device Driver Installation Wizard!] window

9. [Software Installation] window is displayed.

Click [Continue Anyway].

Software Installation
The software you are installing has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation
Click

Fig.6.1.1g [Software Installation] window

10. [Completing the Device Driver Installation Wizard] window is displayed.

Click [Finish].

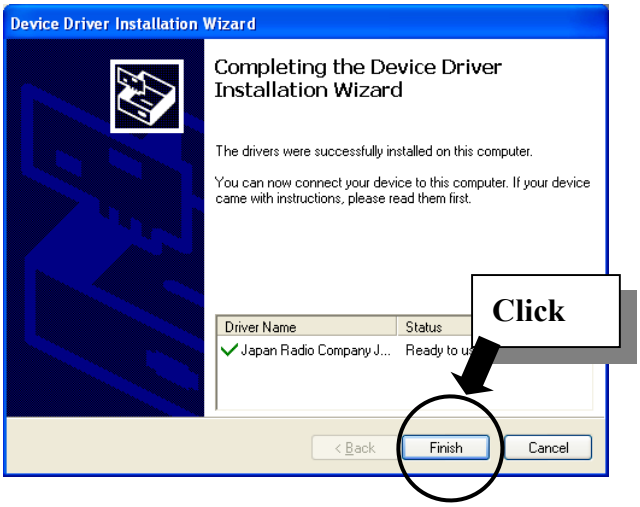

Device Driver Installation Wizard
Completing the Device Driver Installation Wizard
The drivers were successfully installed on this computer.
You can now connect your device to this computer. If your device came with instructions, please read them first.
Driver Name
Status
Japan Radio Company J...
< Back
Finish
Cancel
Click

Fig.6.1.1h [Completing the Device Driver Installation Wizard] window

11. [Installation Complete] window is displayed.

Click [Next].

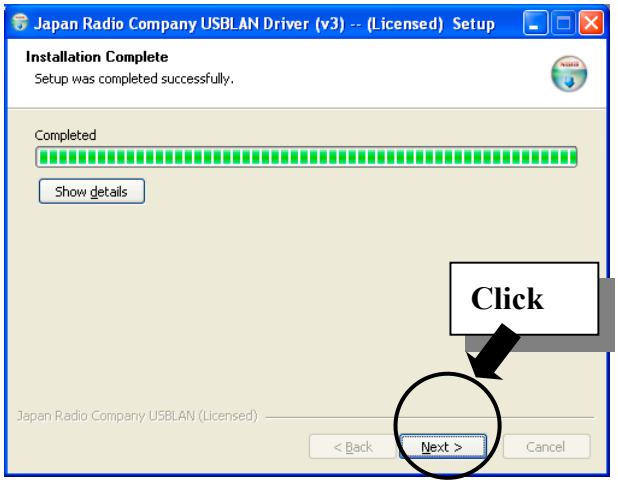


Fig.6.1.1i [Installation Complete] window

12. [Completing the Japan Radio Company USBLAN Driver (v3)-(Licensed) Setup] window is displayed.

Click [Finish].

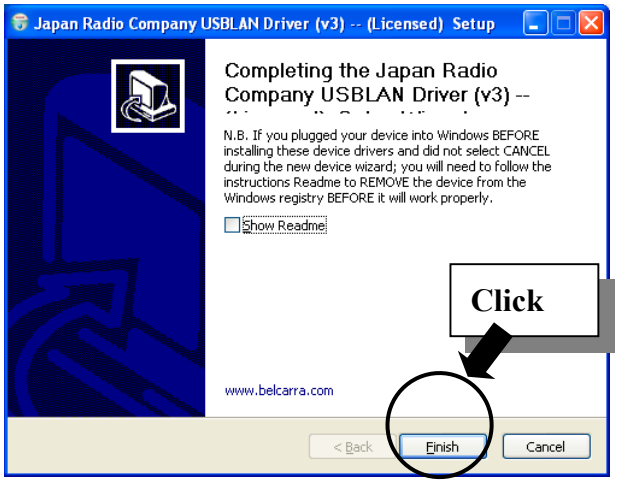

Japan Radio Company USBLAN Driver (v3) -- (Licensed) Setup
Completing the Japan Radio Company USBLAN Driver (v3) --
N.B. If you plugged your device into Windows BEFORE installing these device drivers and did not select CANCEL during the new device wizard; you will need to follow the instructions Readme to REMOVE the device from the Windows registry BEFORE it will work properly.
Show Readme
Click
www.belcarra.com
< Back
Finish
Cancel

Fig.6.1.1j [Completing the Japan Radio Company USBLAN Driver (v3) -(Licensed) Setup] window

6.1.2 Connecting USB ports

Note

Make sure that the main unit is idle status.

1. Connect the USB ports of the main unit and of the PC, with USB cable.

2. [Welcome to the Found New Hardware Wizard] window is displayed.

Check [No, not this time] and click [Next].

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel
Check
Click

Fig.6.1.2a [Welcome to the Found New Hardware Wizard] window

3. [This wizard helps you install software for:....] window is displayed.

Check [Install the software automatically [Recommended]].

Then, click [Next].

Found New Hardware Wizard
This wizard helps you install software for:
Japan Radio Company USB LAN LINK
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel
Check
Click

Fig.6.1.2b [This wizard helps you install software for:....] window

4. [The software you are installing for this hardware:...] window is displayed.

Click [Continue Anyway].

Hardware Installation
The software you are installing for this hardware:
Japan Radio Company USB LAN LINK
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Click
Continue Anyway
STOP Installation

Fig.6.1.2c [The software you are installing for this hardware:...] window

5. [Completing the Found New Hardware Wizard] window is displayed.

Click [Finish].

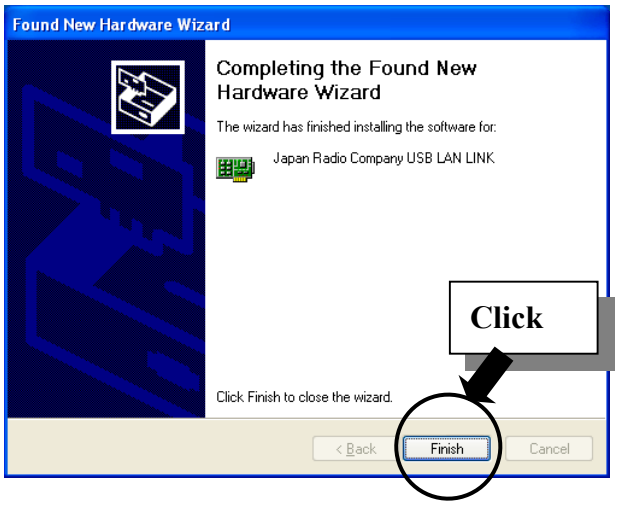


Fig.6.1.2d [Completing the Found New Hardware Wizard] window

6.2 Ethernet port PC connection

The JUE-250 provides the DHCP server function, which allocates necessary IP address to the PC which is connected to Ethernet, to make Ethernet communication with Main Unit possible.

User is requested to setup [Obtain an IP automatically] and [Obtain DNS server address automatically] on the PC, to make use of the function.

1. Turn on the power switch of main unit.

2. Start up your PC, click [My Computer]>[My Network]>[Display the Network Connection].

Then right-click [Local Area Connection] and click [Properties].

3. Click [General] tab, select [Internet Protocol (TCP/IP)] (text is highlighted), then click [Properties].

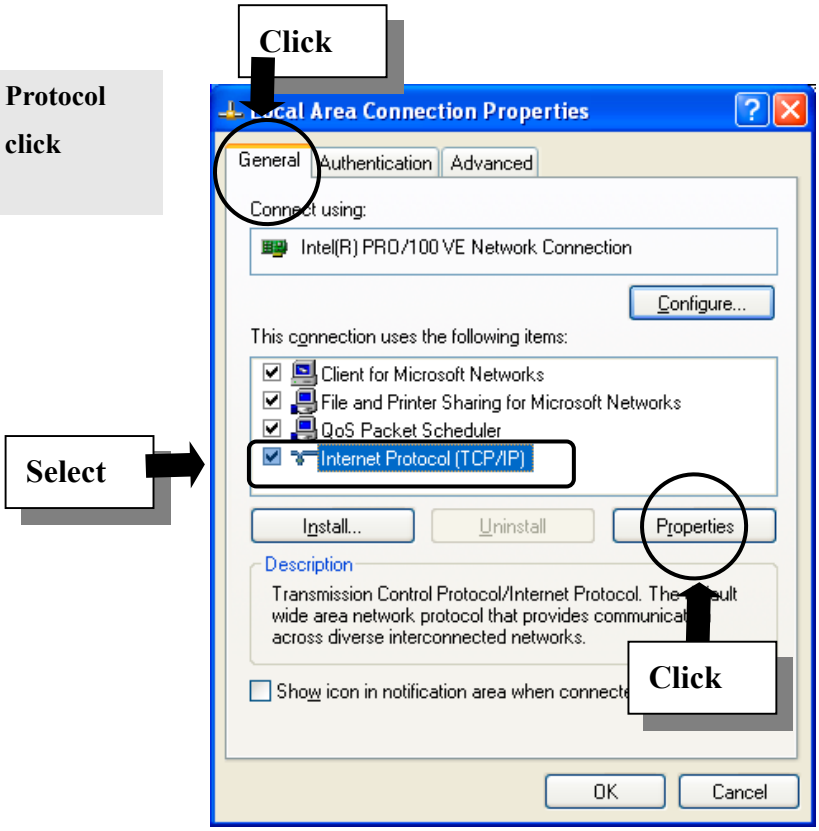


Fig. 6.2a Local Area Connection Properties window

4. Make sure both of [Obtain an IP address automatically] and [Obtain DNS server address automatically] are checked, then click [OK].

5. Reboot your PC.

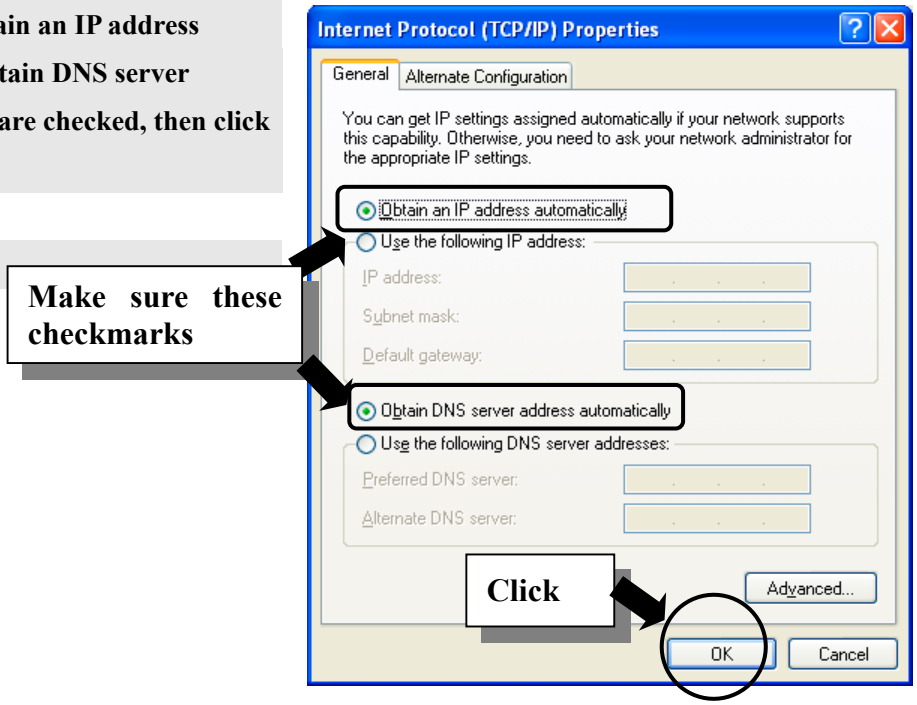

Internet Protocol (TCP/IP) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel
Make sure these checkmarks
Click

Fig. 6.2b Internet Protocol (TCP/IP) Properties window

IP addressing on the JUE-250

- In normal operation, the terminal uses its built-in DHCP server to allocate IP address automatically. If you want to manually set up IP addressing, you can use the terminal's default range of IP addresses, as shown below.

Terminal IP address	**192.168.128.100**
Default range of IP addresses	**192.168.128.101** to **192.168.128.254**
Subnet mask	**255.255.255.0**
DNS	If you use BGAN.INMARSAT.COM as your APN, the default DNS addresses are **172.30.66.7** and **172.30.34.7** If you use another APN, your Distribution Partner supplies you with a DNS address for your APN.

- To test connectivity between your PC and the terminal, ping **192.168.128.100** from your PC. If a reply is received, your PC is connected to the terminal.
- The terminal allocates an IP address to each user connected to the Ethernet or USB interface, up to a maximum of 11 users, and then maps the IP address to a network address for full Network Address Translation (NAT). Each user can therefore open a separate data connection from the terminal, and does not have to share network connections. The relevant setting for the JUE-250 are allocated along with the IP address.

6.3 Connecting to Internet using LaunchPad

By using LaunchPad, communications with services of Standard IP, Streaming IP, or SMS are available very easily and quickly. Installation of LaunchPad is preliminarily required for this chapter, set the attached CD into your PC and install it.

6.3.1 Standard IP

Standard IP Connection/Disconnecting procedures are mentioned below.

[Connection]

1. Open LaunchPad by double-clicking on the LaunchPad icon on your desktop, and click [+], which is located on the [Connect] button.

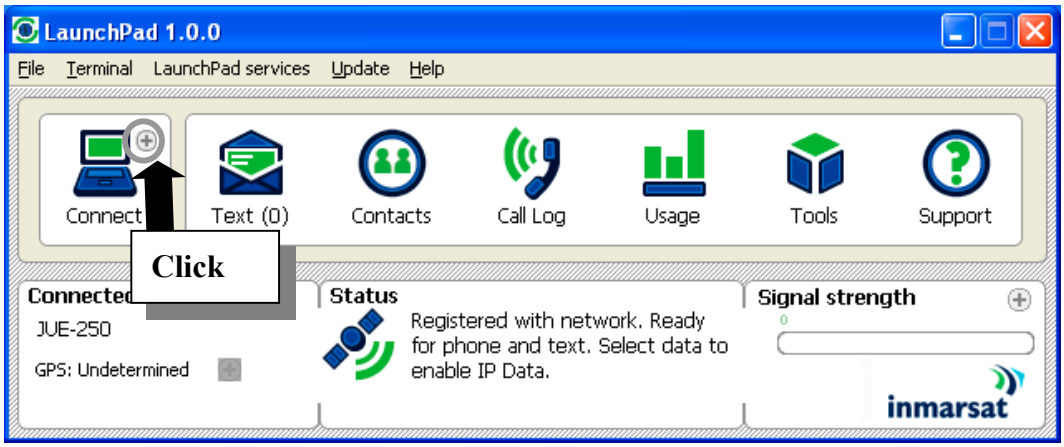


Fig.6.3.1a Main window of LaunchPad

2. Below screen is displayed. Click [Connect Standard] icon, and then connection to Standard IP service is started.

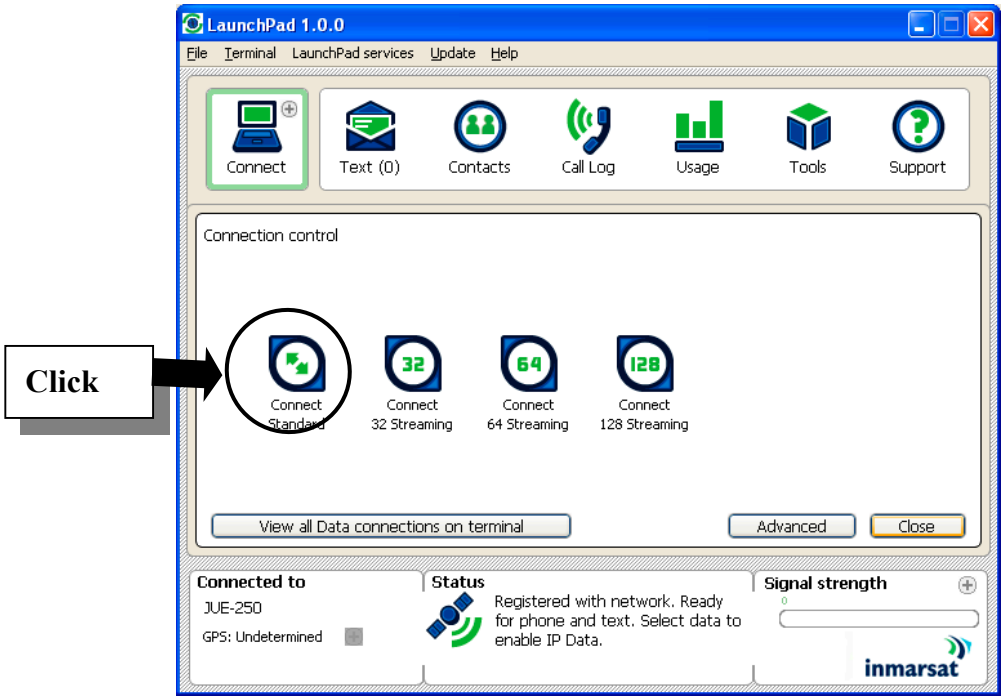


Fig.6.3.1b [Connection control] window

[Connecting] screen is displayed during Standard IP Data connection is requesting.

Fig.6.3.1c [Connecting] window

3. If connection is succeeded, [Connect] icon is changed to [Disconnect], [Connect Standard] icon is changed to [Disconnect Standard], and text of [Status] column is changed to [Standard Data connection open...].

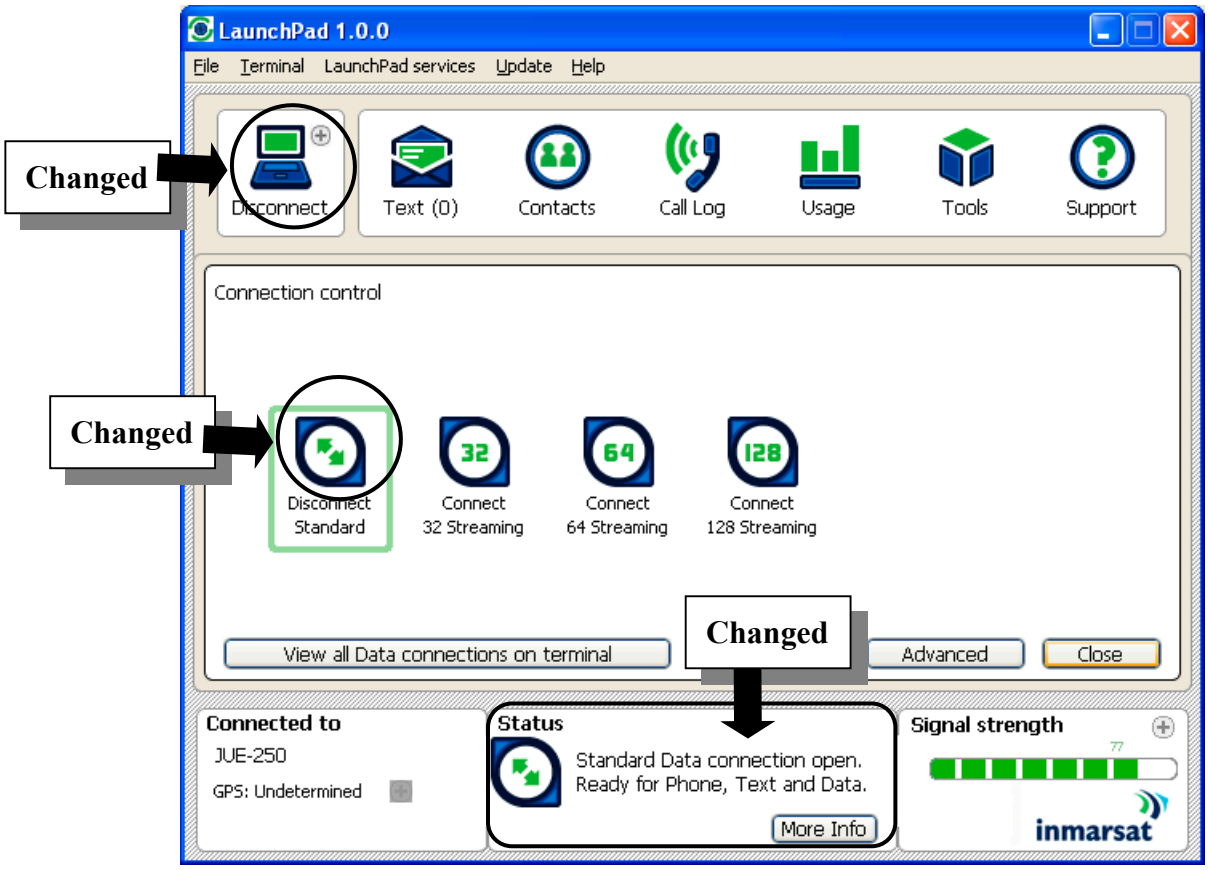


Fig.6.3.1d [Connection control] window (connection succeeded)

[Connecting to Internet]

Standard Data connection is opened. Use your desirable tool.

[Disconnection]

Click [Disconnect] icon.

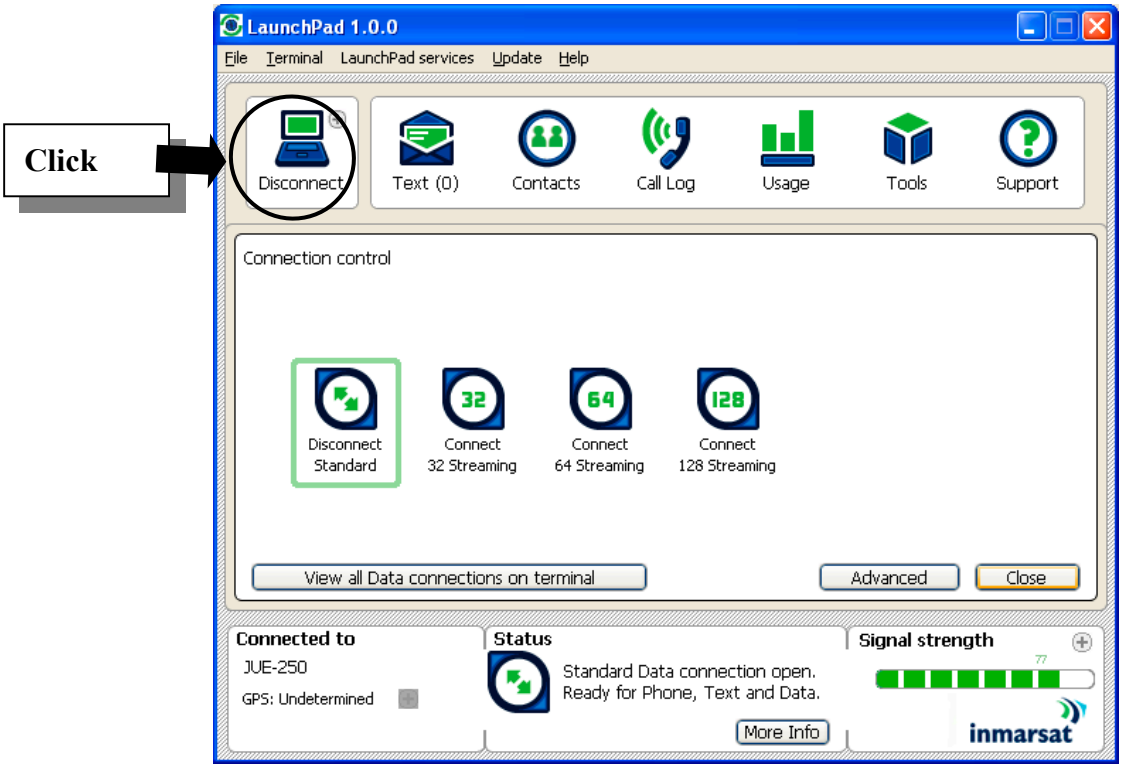


Fig.6.3.1e [Connection control] window (to disconnect the service)

6.3.2 Streaming IP

（Below procedure is for 32kbps Streaming IP service. For 64kbps or 128kbps, difference is only using icons）.

[Connection]

1. Open LaunchPad by double-clicking on the LaunchPad icon on your desktop, and then click [Connect] icon .

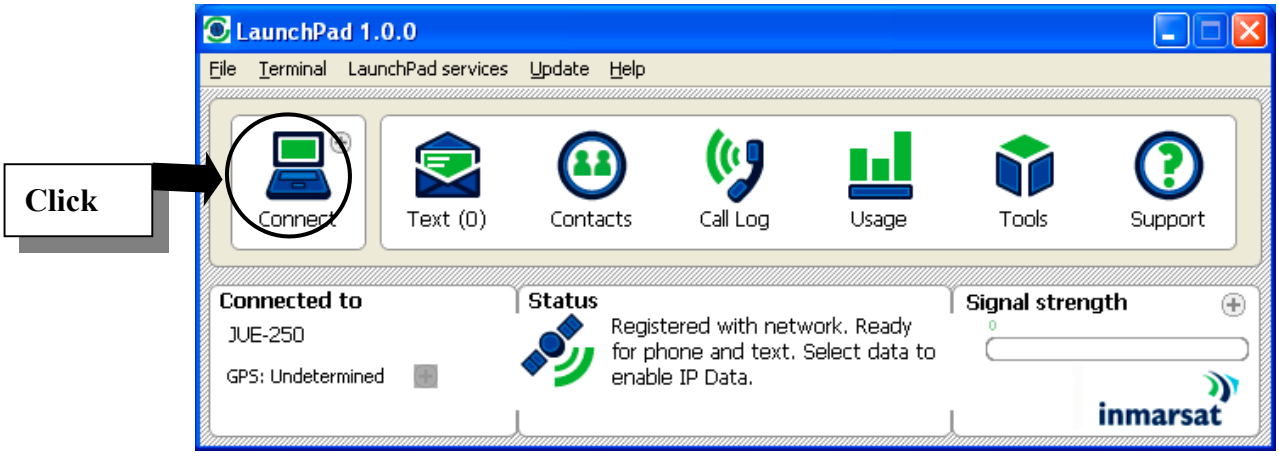


Fig.6.3.2a Main window of LaunchPad

2. Click [Connect 32 Streaming] icon, then connection to Streaming 32kbps IP service is started.

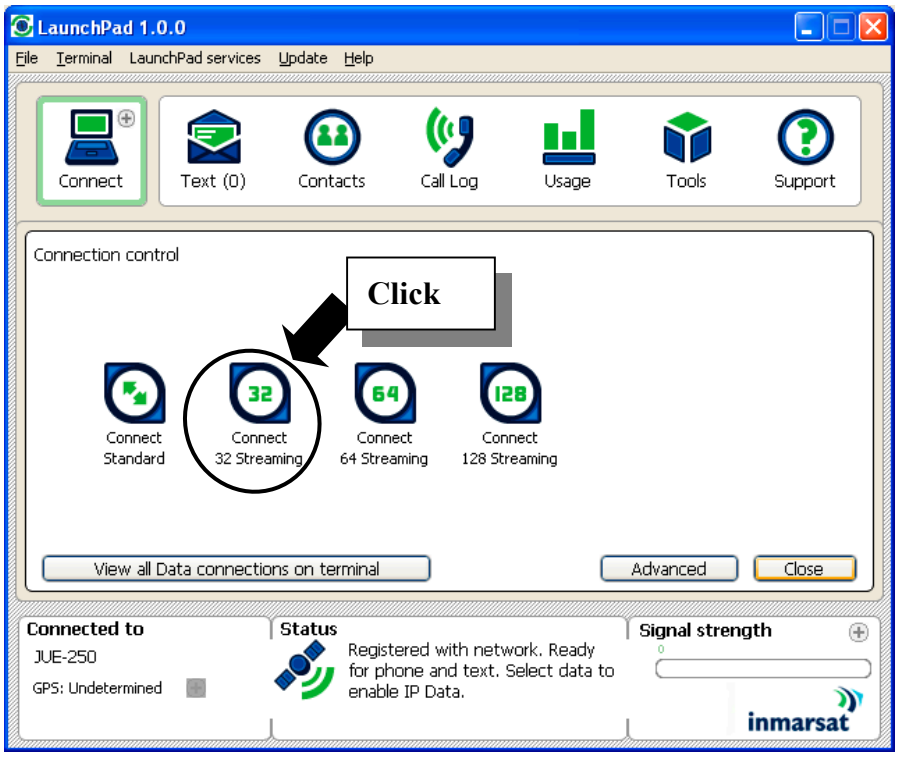


Fig.6.3.2b [Connection control] window

3. Confirmation window is displayed, then click [Yes].

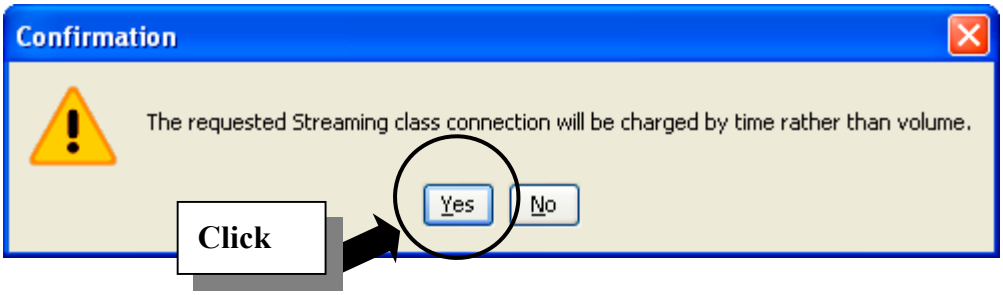


Fig.6.3.2c Confirmation window

[Connecting] screen is displayed during Streaming IP Data connection is requesting.

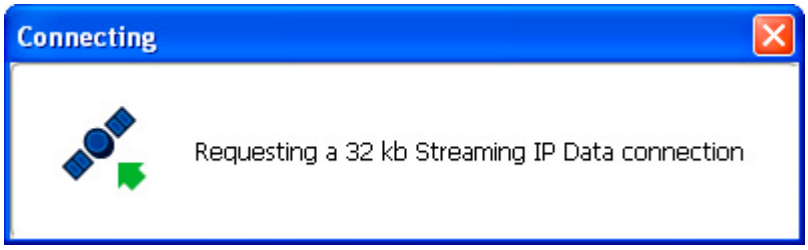


Fig.6.3.2d [Connecting] window

4. If connection is succeeded, [Connect] icon is changed to [Disconnect], [Connect 32 Streaming] icon is changed to [Disconnect 32 Streaming], and text of [Status] column is changed to [Streaming Data connection open...].

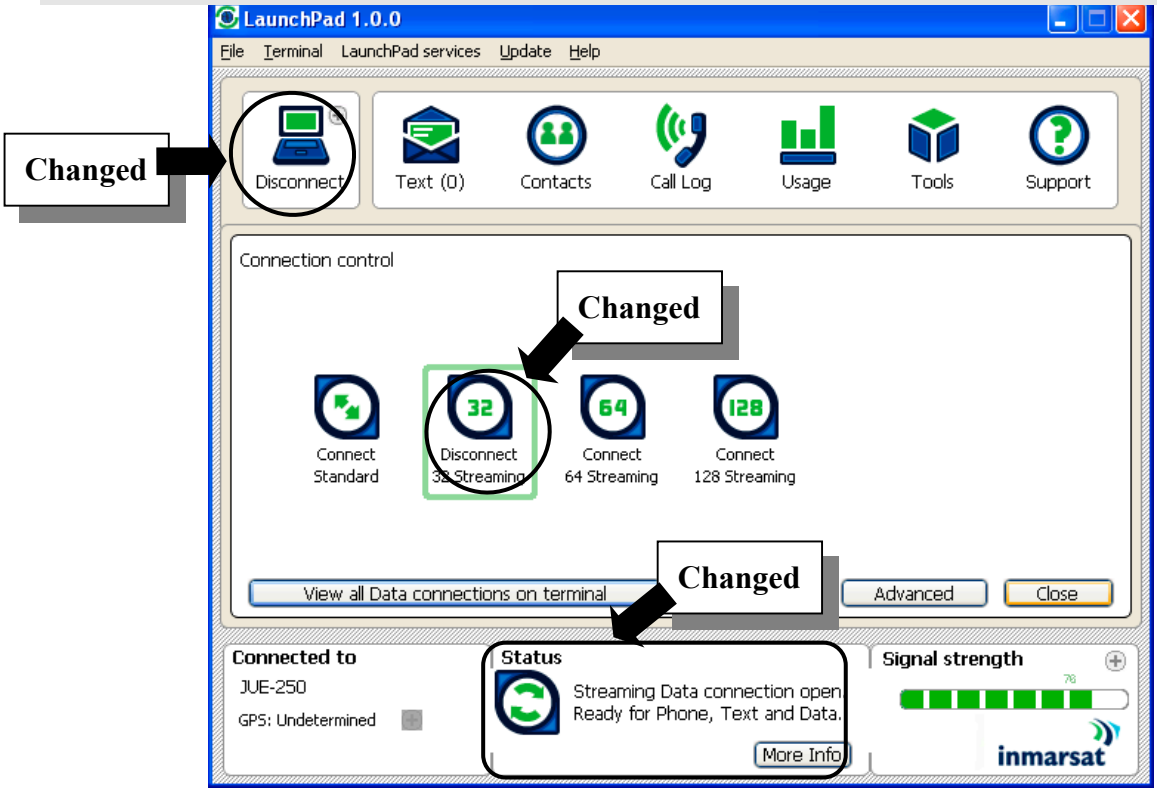


Fig.6.3.2e [Connection control] window (connection succeeded)

[Connection]

Streaming Data connection is opened. Use your desirable tool.

[Disconnection]

Click [Disconnect] icon.

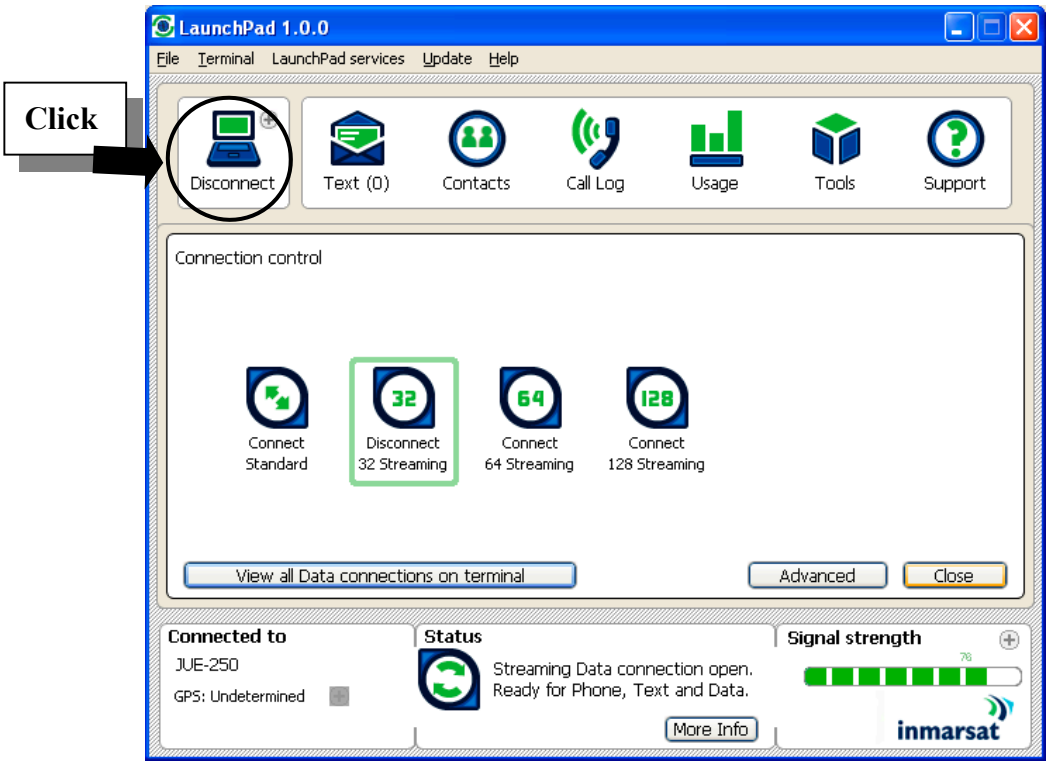


Fig.6.3.2f [Connection control] window (for disconnection)

6.3.3 SMS

Sending SMS procedures are mentioned below.

6.3.3.1 Sending SMS

1. Open LaunchPad by clicking on the LaunchPad icon on your desktop, and click [Text] button.

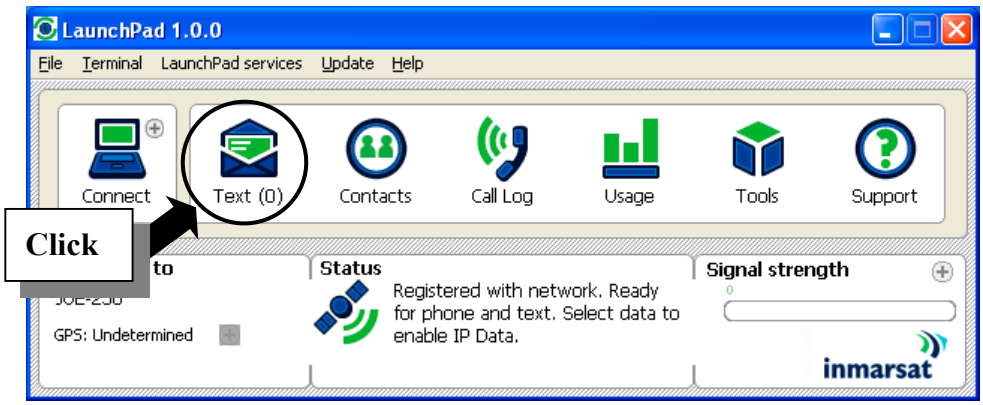


Fig.6.3.3.1a Main window of LaunchPad

2. Position the cursor to the large column of [Compose new message] field, and create the message. And position the cursor to [To.....] column and enter the distination number. Finally, click [Send] button.

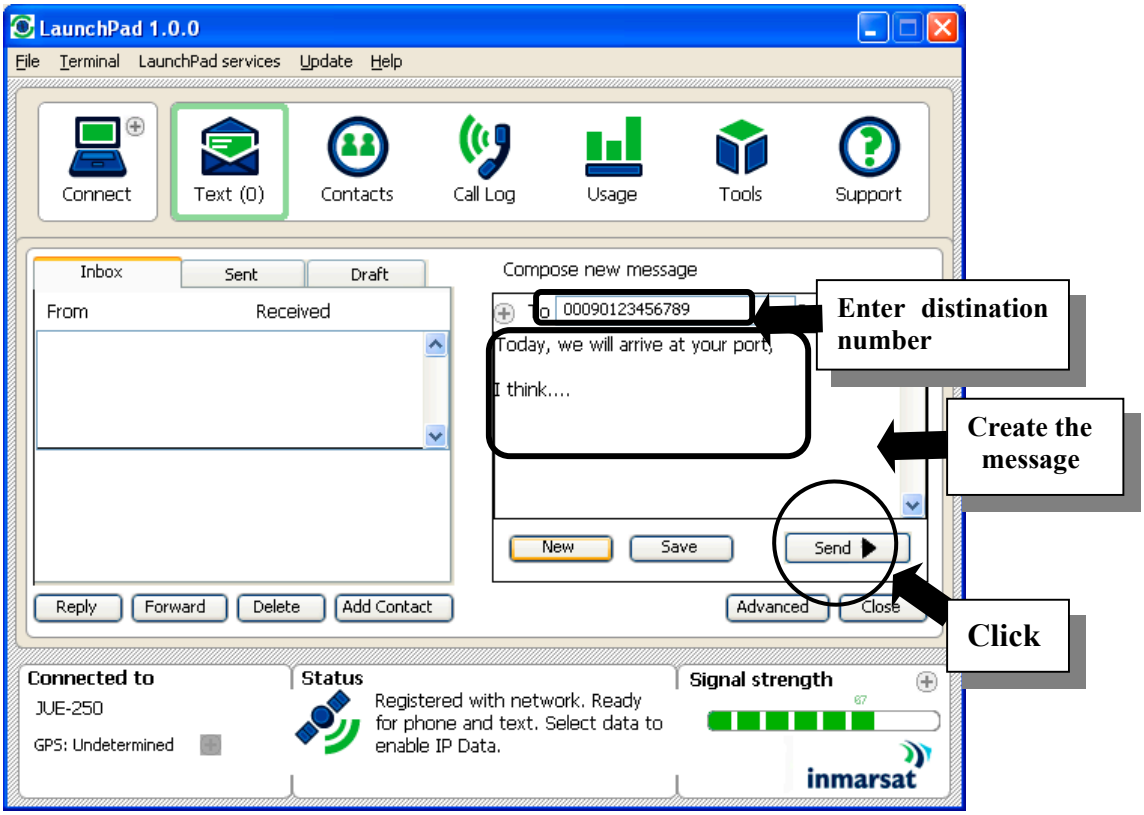


Fig.6.3.3.1b Text window

7. Using telephone/FAX on Audio port

Satellite is already selected in Chapter4. In this section, a continued setting for using telephone/FAX on Audio port is explained.

Continued from [4.2 Initial setting for communication]

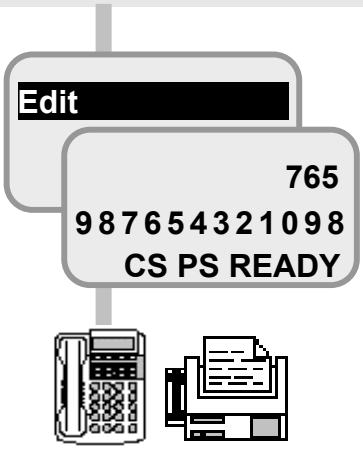


Fig. 7a Setting flow using telephone/FAX on Audio port

Audio port acts as a ISDN Basic Rate Interface (BRI) Network Termination (NT) and provides a S/T (SO) interface. (Note that only 1B channel (1 call) can be supported at any time). The specification of this port is,

Item	Specification
Network Switch Type	Euro ISDN
Coding Type of voice	A-law
Max. number of unit	8 TEs (Max. current is 50mA)
Connector	RJ-45 (S/T Interface)
Supported service	-Inmarsat 4kbps Voice -Inmarsat 64kbps 3.1kHz Audio

NOTE

- Audio port and Ethernet port use the same connector type (RJ-45). Be careful not to connect the wrong port.
- Audio port supports only Inmarsat 4kbps Voice and Inmarsat 64kbps 3.1kHz Audio services. Terminals using UDI/RDI services like Video Phone or G4 FAX are not supported.

7. Using telephone/FAX on Audio port

When a TE originates a call, JUE-250 originates a call in according to a “transfer capability” informed from TE. When the “transfer capability” from TE is “Speech”, JUE-250 originates “Inmarsat 4kbps Voice” call. When the “transfer capability” from TE is “3.1kHz Audio”, JUE-250 originated “ Inmarsat 64kbps 3.1kHz Audio” call.

When a call arrives to JUE-250, JUE-250 informs a Multiple Subscriber Number (MSN) programmed by user to TE. TE can identify an arriving service using this MSN.

You should setup following items:

(1) MSN and “transfer capability” of TE according to TE’s manual

(2) MSN of JUE-250

[Connection sample]

Condition
・ For telephone (MSN=1, transfer capability=Speech)
・ For FAX (MSN=2, transfer capability=3.1kHz Audio)

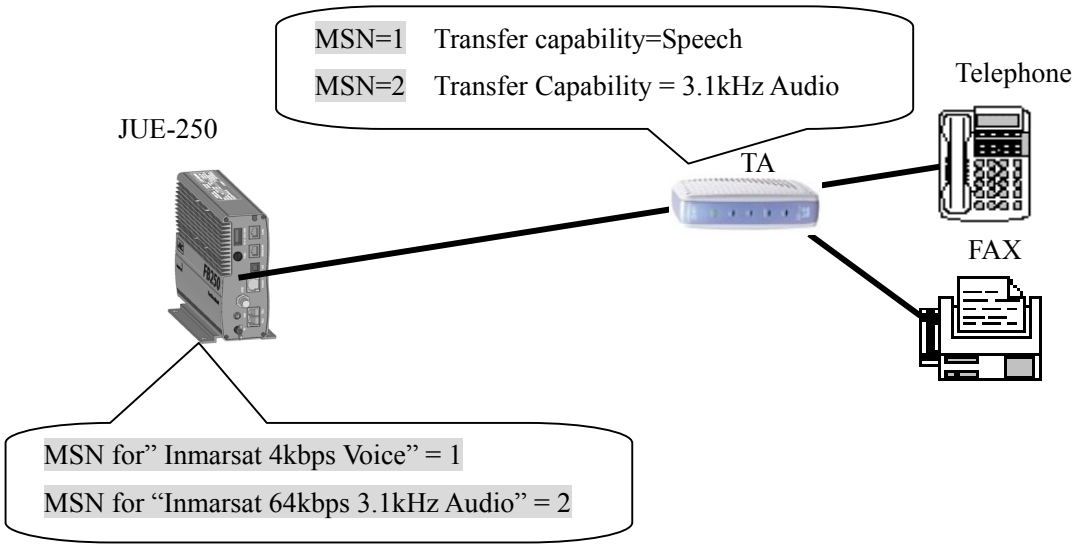


Fig.7b Connection sample of Audio port

Setting MSN using Handset [MSN edit menu]

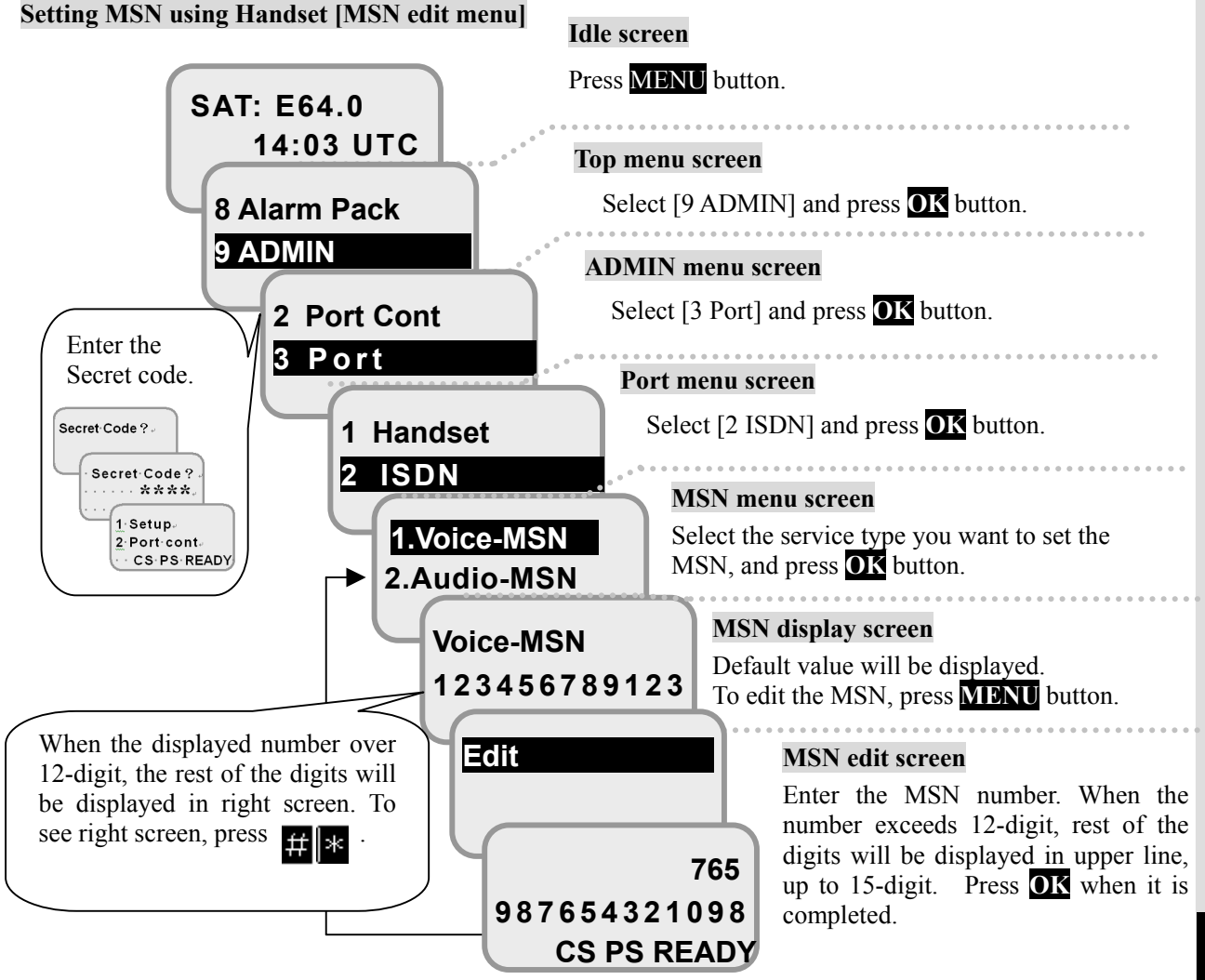

Idle screen
Press MENU button.
SAT: E64.0
14:03 UTC
Top menu screen
Select [9 ADMIN] and press OK button.
8 Alarm Pack
9 ADMIN
ADMIN menu screen
Select [3 Port] and press OK button.
2 Port Cont
3 Port
Enter the Secret code.
Secret Code ?
Secret Code ?
****
1 Setup
2 Port cont
CS PS READY
Port menu screen
Select [2 ISDN] and press OK button.
1 Handset
2 ISDN
MSN menu screen
Select the service type you want to set the MSN, and press OK button.
1.Voice-MSN
2.Audio-MSN
MSN display screen
Default value will be displayed.
To edit the MSN, press MENU button.
Voice-MSN
123456789123
When the displayed number over 12-digit, the rest of the digits will be displayed in right screen. To see right screen, press # * .
Edit
MSN edit screen
Enter the MSN number. When the number exceeds 12-digit, rest of the digits will be displayed in upper line, up to 15-digit. Press OK when it is completed.
765
987654321098
CS PS READY

Fig. 7c Flow of Setting MSN using Handset [MSN menu]

NOTE

MSN display screen (left)

Voice-MSN
123456789123
CS PS READY

MSN display screen (right)

Voice-MSN
456
CS PS READY

MSN edit screen

765
987654321098
CS PS READY

MSN edit screen shows whole digits (even the number exceeds 12-digit) in single screen by showing 1st to 3rd digits in upper line, unlike the MSN display screen shows the 13th to 15th digits to next (right) screen.

Fig. 7d Displaying digits of MSN display/edit screens

Dial-up procedure from Audio port

00 Country Code Area Code Subscriber's number #

Example) Placing a call to +81-422-45-9111, in Japan→**0081422459111#**

NOTE

The telephone connected to Audio port cannot forwarding a call to TEL1 port, TEL2 port, or Handset port.

Also, a call using Secret Code and forced setting service are not supported yet.

Regarding the Redial calling and the Speed Dialing, it is depending on the specification of your Terminal Adapter.

8. Handset Menu system

All screens of Handset of the JUE-250 and their functions are as follows.

Table. 8. Contents of Handset menu

Chapter No/Name of screen	Contents
-TOP menu	**Displays the list of items of this group.**
8.1 Status menu	**Displays** the list of the items of equipment status.
8.2 SMS menu	**Displays, creates, sends, receives, and deletes** the SMS.
8.3 Satellite menu	**Displays** the list of the items of Satellite status.
8.4 Phone Book menu	**Displays** the Phone Book.
8.5 Redial menu	**Displays** the list of Redial number.
8.6 Call Log menu	**Displays** the list of Call Log.
8.7 Self Test menu	**Displays** the list of Self Test items.
8.8 Alarm Pack menu	**Displays** the list of Alarm Pack Log.
-8.9 ADMIN menu	**Displays the list of setting/ browsing items available for ADMIN user only**
8.9.1 Set up menu	**Sets up** Delivery date Time difference, Local Time display On/Off of LED Tracking type
8.9.2 Port Cont menu (Port Control)	**Sets up** Use of Secret code of Handset/terminal telephone Voice volume of Handset/terminal telephone Type of terminal telephone (VOICE or FAX)
8.9.3 Port menu	**Sets up** Backlight of screen/Dimmer of LEDs Pattern/Volume of Ringer tone On/Off of key click sound (ISDN) MSN of Voice/Audio
8.9.4 User Reg. (User Registration)	**Sets up** Users who use secret code
8.9.5 Auto DCN. (Auto Disconnect)	**Sets up** Maximum connection time of each communication terminal
8.9.6 USIM menu	**Sets up** Communication mode using USIM card

Accessible for All user

Accessible for ADMIN user Only

(This screen is popped up in all menu)

8.10 Other screen (Pop-up screen)	**Alarm message pops up when BDE status is changed.**

TOP menu

To open TOP menu, just push MENU button

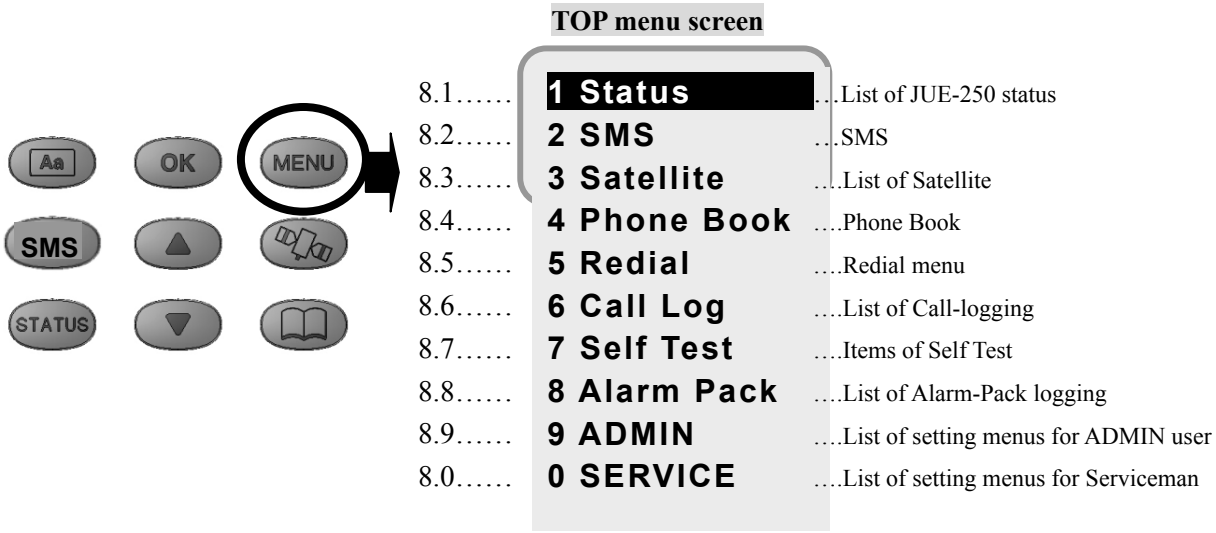

TOP menu screen
Aa
OK
MENU
SMS
STATUS
8.1..... 1 Status ...List of JUE-250 status
8.2..... 2 SMS ...SMS
8.3..... 3 Satellite ....List of Satellite
8.4..... 4 Phone Book ....Phone Book
8.5..... 5 Redial ....Redial menu
8.6..... 6 Call Log ....List of Call-logging
8.7..... 7 Self Test ....Items of Self Test
8.8..... 8 Alarm Pack ....List of Alarm-Pack logging
8.9..... 9 ADMIN ....List of setting menus for ADMIN user
8.0..... 0 SERVICE ....List of setting menus for Serviceman

Fig. 8a To open Top menu screen

Note) [0 SERVICE] is the menu for serviceman only, ordinary user cannot log-in although TOP menu screen displays this menu all the time.

Direct button makes quick access to each menu

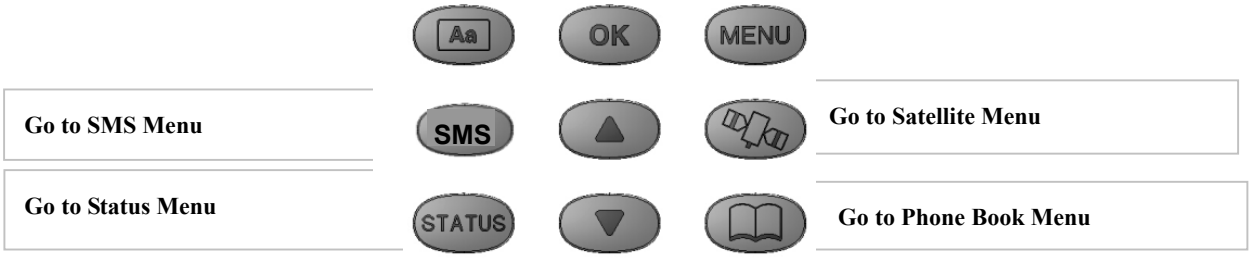


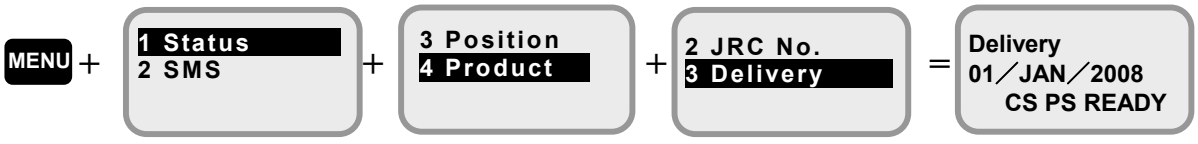
Fig. 8b Direct buttons

■ **Short cut function also makes quick access to each menu**

(Available for almost all of the screens)

Press **MENU** button and the number of each item, then you can display desired screen directly.

Example) To display [Delivery setting value screen], press **MENU** +1+4+3



Delivery setting value screen

Fig. 8c Quick access with Short cut function

■**Press CLR button to return to the previous screen.**

■**Press** **button to return to Idle screen instantly.**

In this section, menus for all users are described.

8.1 Status menu (Short cut is MENU+ 1)

In this menu, user can display the status of the JUE-250, receiving/transmitting status, latitude/longitude of the ship and the version of each device.

The figure shown below is the whole flow chart of this menu. Each item is selectable.

Press **OK** button to fix. To return to Top menu, press **CLR** button several times.

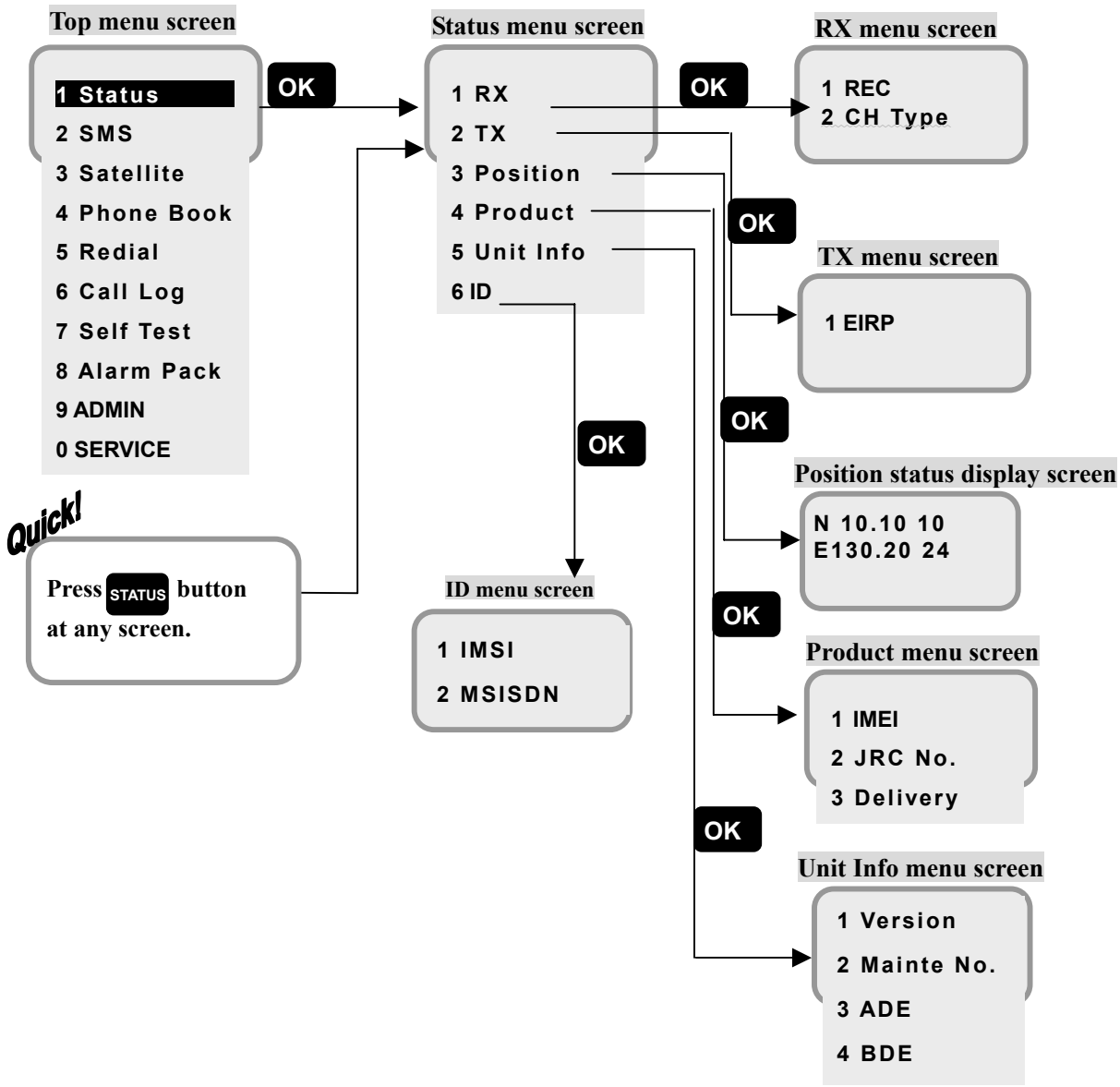
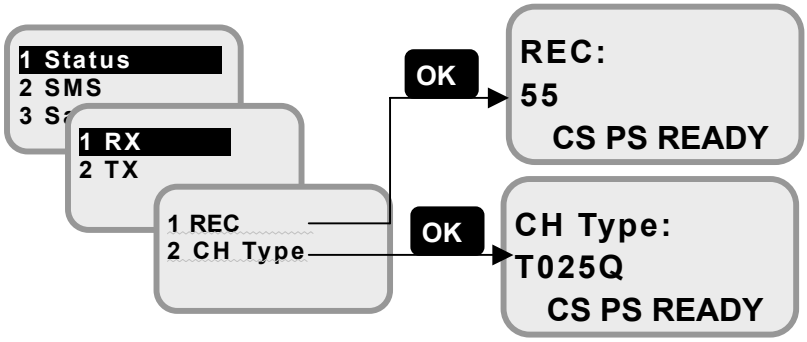


Fig. 8.1 Configuration of Status menu

8.1.1 RX(Reception) menu (MENU+ 1 +1 +1 to 3)

In this menu, user can display the Reception level (REC), Channel type (CH TYPE), and Channel status (CH).



REC level display screen

RECeiving level is displayed in number value.
Communication is not available when low value is displayed.

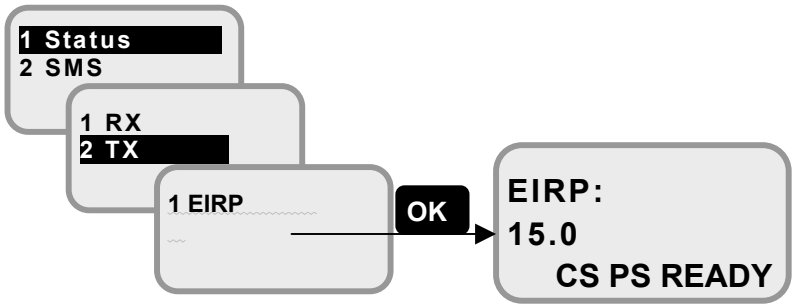
CH Type setting value display screen

Channel type is displayed from T025Q, T1Q, T1X, and T45X.

Fig. 8.1.1 RX(Reception) Menu

8.1.2 TX(Transmission) menu (MENU+ 1 +2)

In this menu, user can display the Transmission level (EIRP).



EIRP display screen

EIRP (Transmission level) is displayed in number..

Fig. 8.1.2 TX(Transmission) menu

8.1.3 Position status display (MENU + 1 + 3)

In this menu, user can display the latitude and longitude of ship's position.

N stands for North latitude, S for South latitude, E for East longitude, and W for West longitude.

N and S are displayed in upper line, and E and W in the lower.

Status of GPS positioning consists of the four terms listed below.

Table 8.1.3 Position acquisition status of GPS

1 COLD START	The position is not fixed yet.	UNFIX status
2 UNFIX		
3 2-D FIX (2 dimensional positioning)	The position has been fixed by three satellites, but altitude is not.	FIX status
4 3-D FIX (3 dimensional positioning)	The distance to satellites are measured simultaneously, the ship's latitude, longitude, and altitude are fixed.	

UNFIX screen is displayed when GPS status is COLD START or UNFIX.

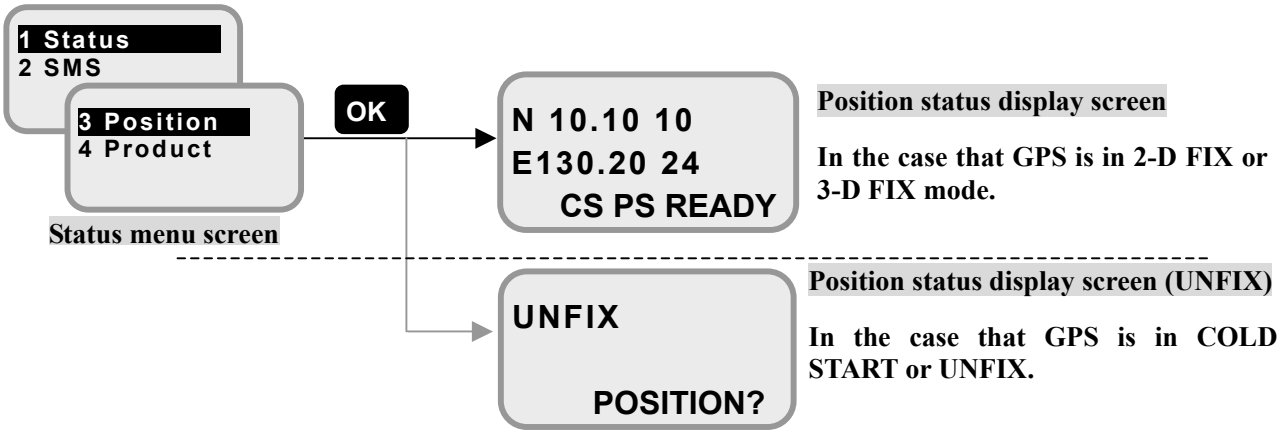


Fig. 8.1.3a Position status display screens

8.1.4 Product menu (MENU + 1 + 4 + 1 to 3)

In this menu, user can display the IMEI (International Mobile Equipment Identity), JRC No, (manufacturer's serial No.), and Delivery date of the JUE-250.

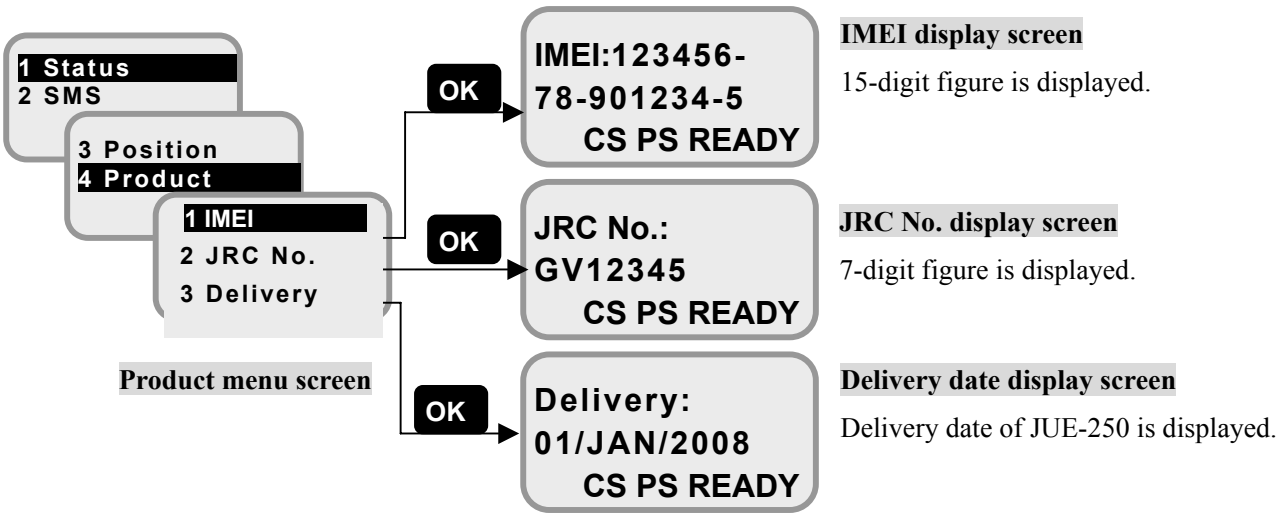


Fig. 8.1.4 Product menu status display screens

8.1.5 Unit Info menu (MENU + 1 + 5 + 1 to 4)

In this menu, user can display the software version, maintenance No. and status of ADE/BDE.

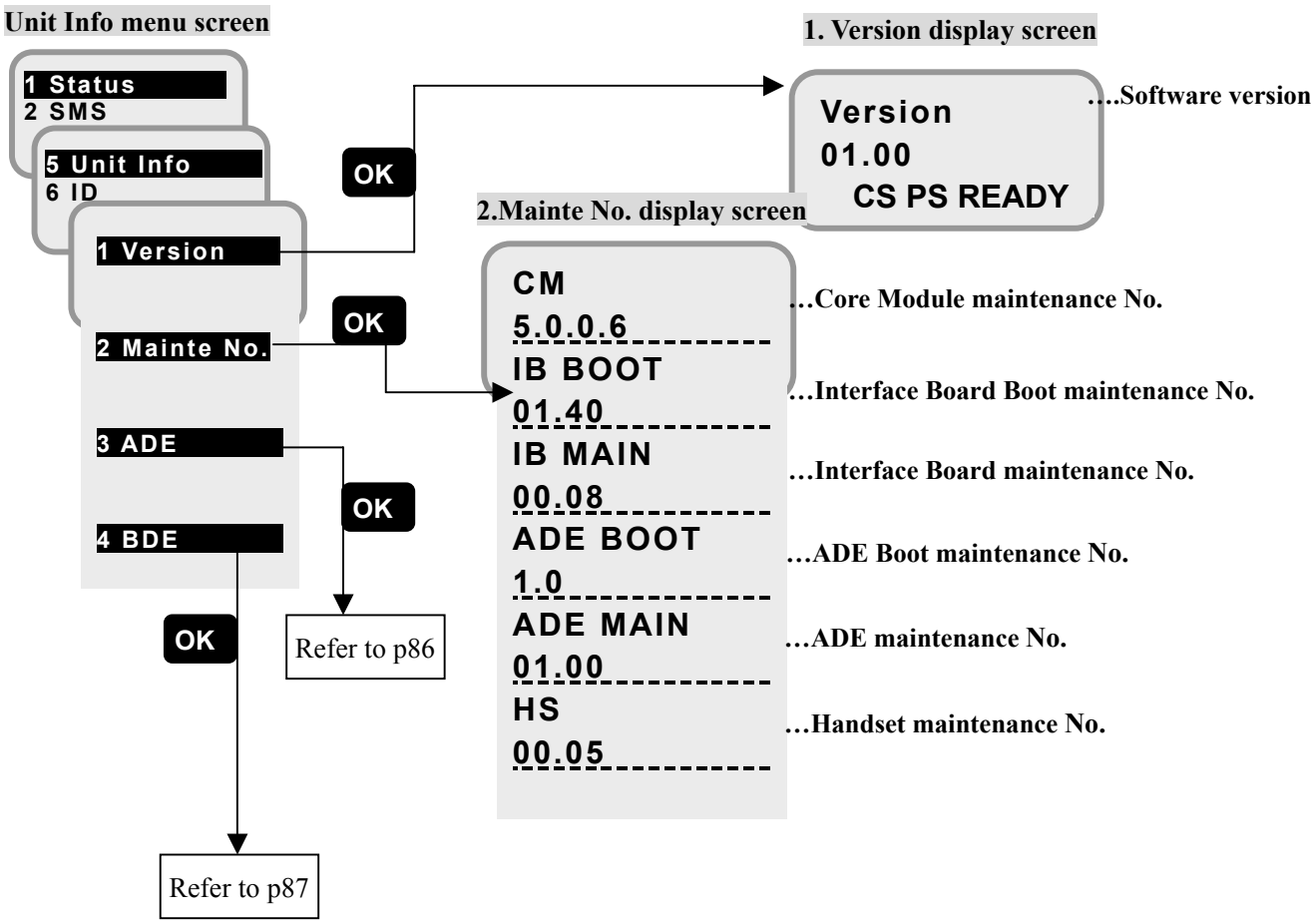
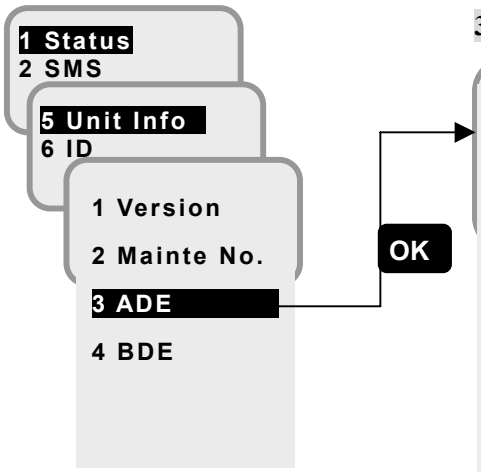
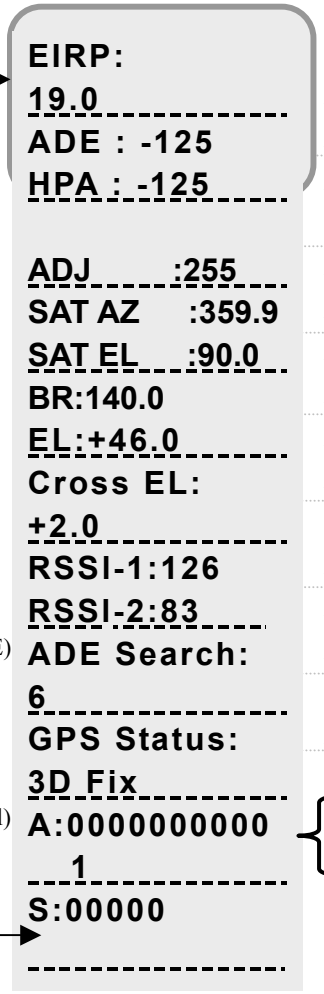


Fig. 8.1.5a Each status display screen of Unit Info (1/3)



Unit Info menu screen

3.ADE status display screen



….Transmitting output (degree)
…..ADE temperature (degree)
….HPA temperature (degree)

….EIRP ADJ RFS setting value
….Satellite AZMUTH
….Satellite Elevation
….Antenna Bearing
….Antenna Elevation
….Antenna Cross Elevation

…..Radio wave strength of satellite(left half)
…..Radio wave strength of satellite(right half)
…..Satellite search status of ADE

….Position acquisition status of GPS

Alarm bit display (from left, displaying 1 means abnormal)

(1st line)

1. Control error
2. Acceleration sensor error
3. Rate sensor error
4. Memory error
5. Off power alarm
6. High power alarm
7. Burst error
8. Program error
9. FAN error
10 (Reserved bit)

(2nd line)

11. GPS alarm
(COLD START or UNFIX)

Status bit display (from left)

1. PLL Lock Detect (displayed status of ADE)
2. Rate sensor setting (displayed status of ADE)
3. Servo setting (displayed status of ADE)
4. Step track setting (displayed status of ADE)
5. Usests (input method of position information;0: Internal 1: Manual)

Fig. 8.1.5b

*Explanation of software upgrade error display (p87)
Below numbers are displayed to XX, YY, ZZ. [,] is displayed as delimiter when the number is 1-digit(e.g. 3,0,0,).

XX:Status when failed

1. Initial status
2. IBchecking
3. IB updating
4. ADE update preparing
5. Activating
6. Checking activation
7. ROM erasing
8. Resetting
9. Checking ROM erasing
10. Transmiting
11. Transmission terminated
12. Developing
13. Re-writing
14. Checking ROM

YY: Error No. when IB software upgrade is failed

1. No error
2. File name error
3. IB image error (CRC/ID/length)
4. Data fowarding error
5. CM no reply
6. IB backup is failed

ZZ : Error No. when ADE software upgrade is failed

0. No error
2. File name error
4. Data fowarding error
5. CM no replay
7. ADE image error（CRC/ID/length）

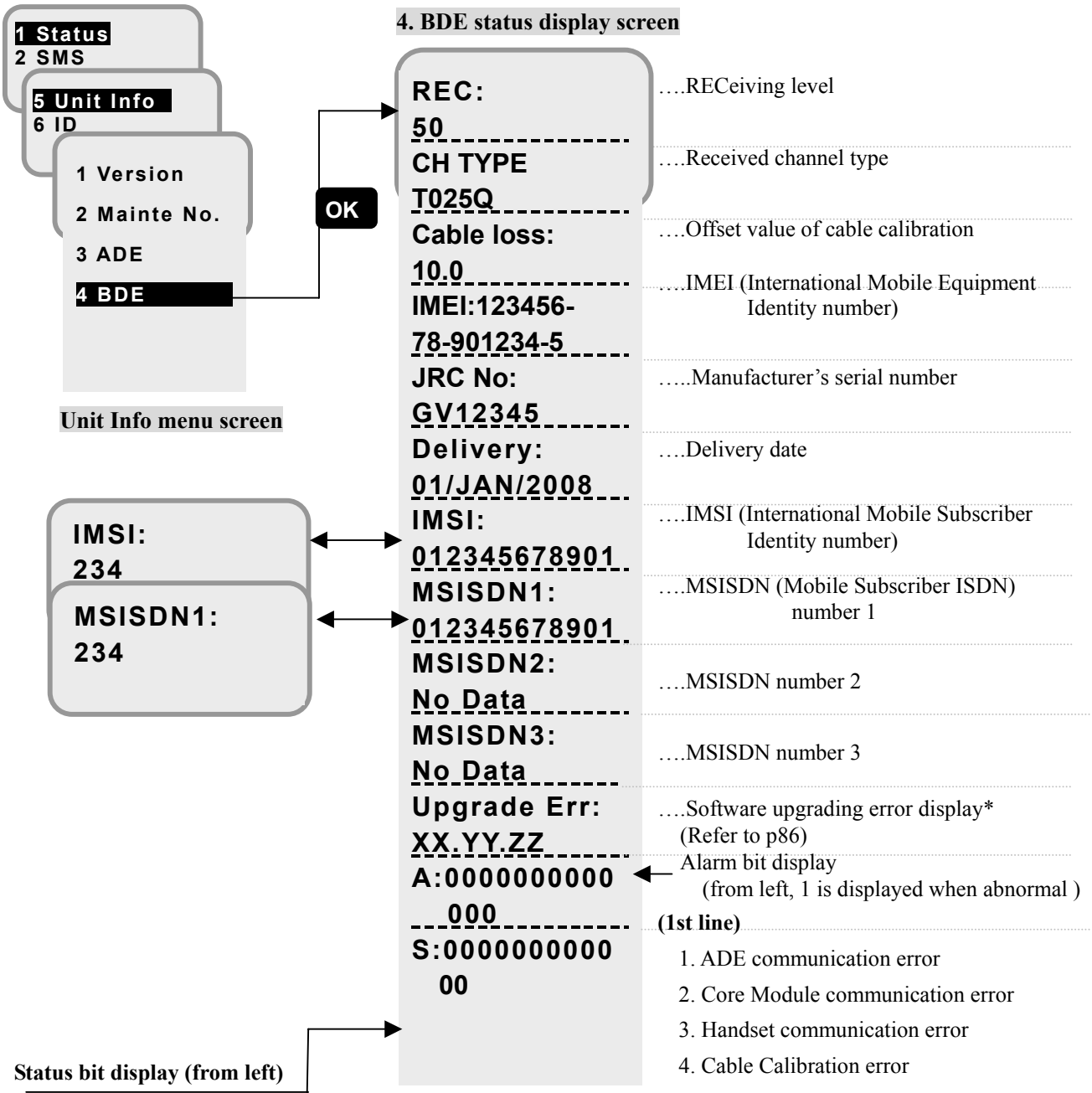
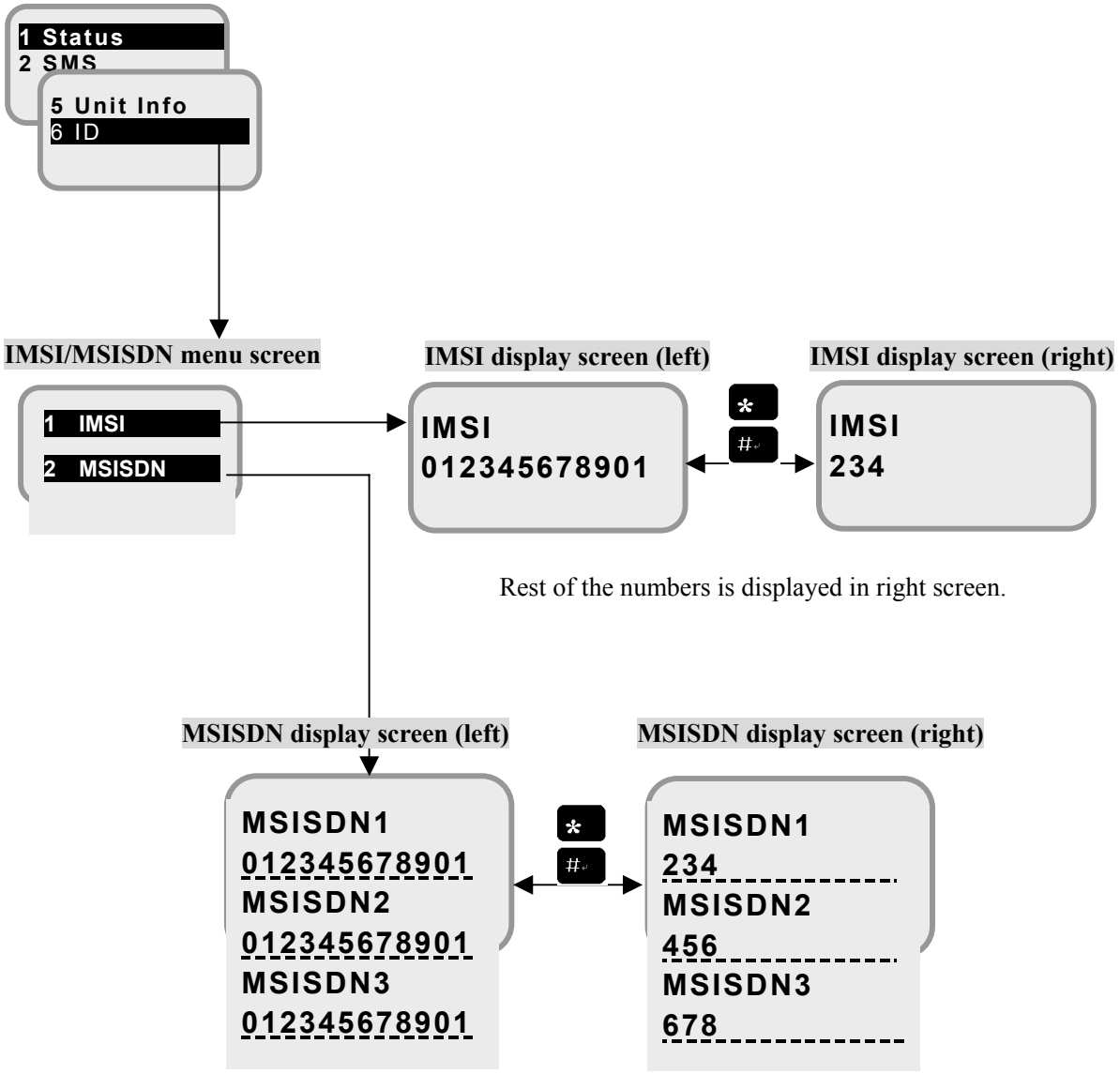


Fig. 8.1.5c Each status display screen of Unit Info(3/3)

8.1.6 ID menu (MENU+ 1 +6+ 1 to 2)

In this menu, user can display the ID of IMSI/MSISDN.



IMSI (International Mobile Subscriber Identity)

MSISDN (Mobile Subscriber ISDN Number)

Fig. 8.1.6 ID menu status display screens

8.2 SMS menu (MENU + 2)

In this menu, user can read, create, send, and delete SMS.

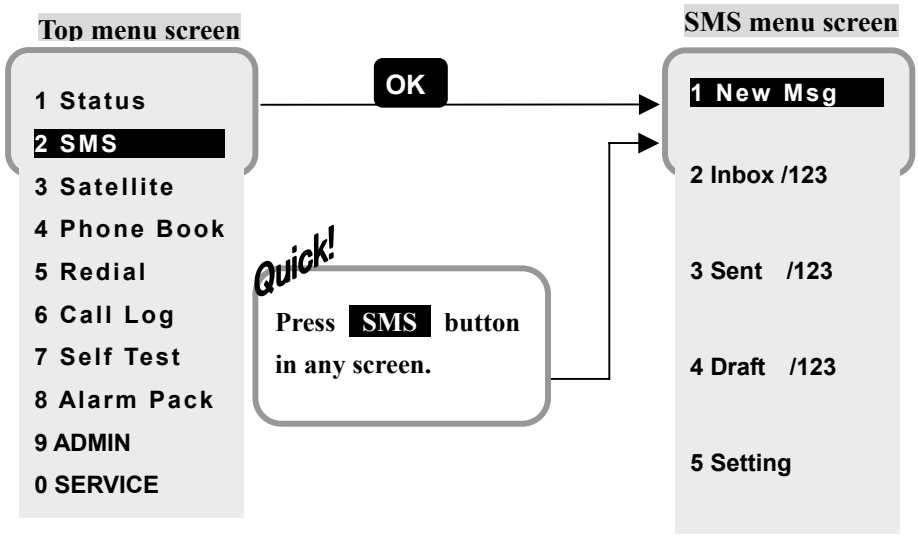


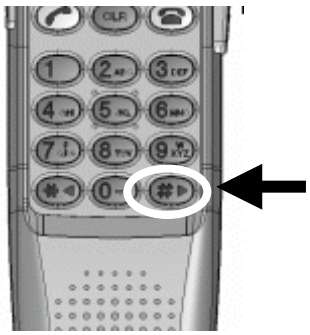
Fig. 8.2a SMS menu screen

How to input the message from Handset

- To toggle the input mode, press Aa button.

  Input mode is transited within Aa(Capital input mode), aA(alphabet input mode) , and (nothing is displayed, it is numeric mode).
  Refer to the next page about the detail of the characters applied by each mode.

Fig. 8.2b To toggle the input mode

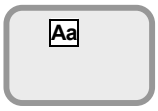


- To fix the input character, press #► key.

  Input character blinks and not fixes until #► key is pressed.

Fig. 8.2b To fix the input character

Capital input mode



When Aa is displayed in [Input mode] area, below characters are being input.

Pushed times	1	2	3	4	5	6	7	8	9	10	11	12	13
(Key) 0	.	,	-	?	!	“	‘	¥	$	&	:	;	#
1	*1	*2	@	_	(	)	<	>	%	+	*	/	=
2	A	B	C	a	b	c							
3	D	E	F	d	e	f							
4	G	H	I	g	h	i							
5	J	K	L	j	k	l							
6	M	N	O	m	n	o							
7	P	Q	R	S	p	q	r	s					
8	T	U	V	t	u	v							
9	W	X	Y	Z	w	x	y	z					

_

alphabet input mode

When aA is displayed in [Input mode] area, below characters are being input.

Pushed times	1	2	3	4	5	6	7	8	9	10	11	12	13
(Key) 0	.	,	-	?	!	“	‘	¥	$	&	:	;	#
1	*1	*2	@	_	(	)	<	>	%	+	*	/	=
2	a	b	c	A	B	C							
3	d	e	f	D	E	F							
4	g	h	i	G	H	I							
5	j	k	l	J	K	L							
6	m	n	o	M	N	O							
7	p	q	r	s	P	Q	R	S					
8	t	u	v	T	U	V							
9	w	x	y	z	W	X	Y	Z					

*1 =space Press 1 key once, a space is entered in cursor position.

*2 =new line Press 1 key twice, the linefeed is executed at cursor position.

Numeric mode

When nothing is displayed in [Input mode](numeric mode) area, it is numeric mode.

8.2.1 New Msg menu (MENU+ 2+ 1)

In this menu, user can create, send, and save (as unsent) new messages. Unsent messages are saved in the [4. Draft] menu.

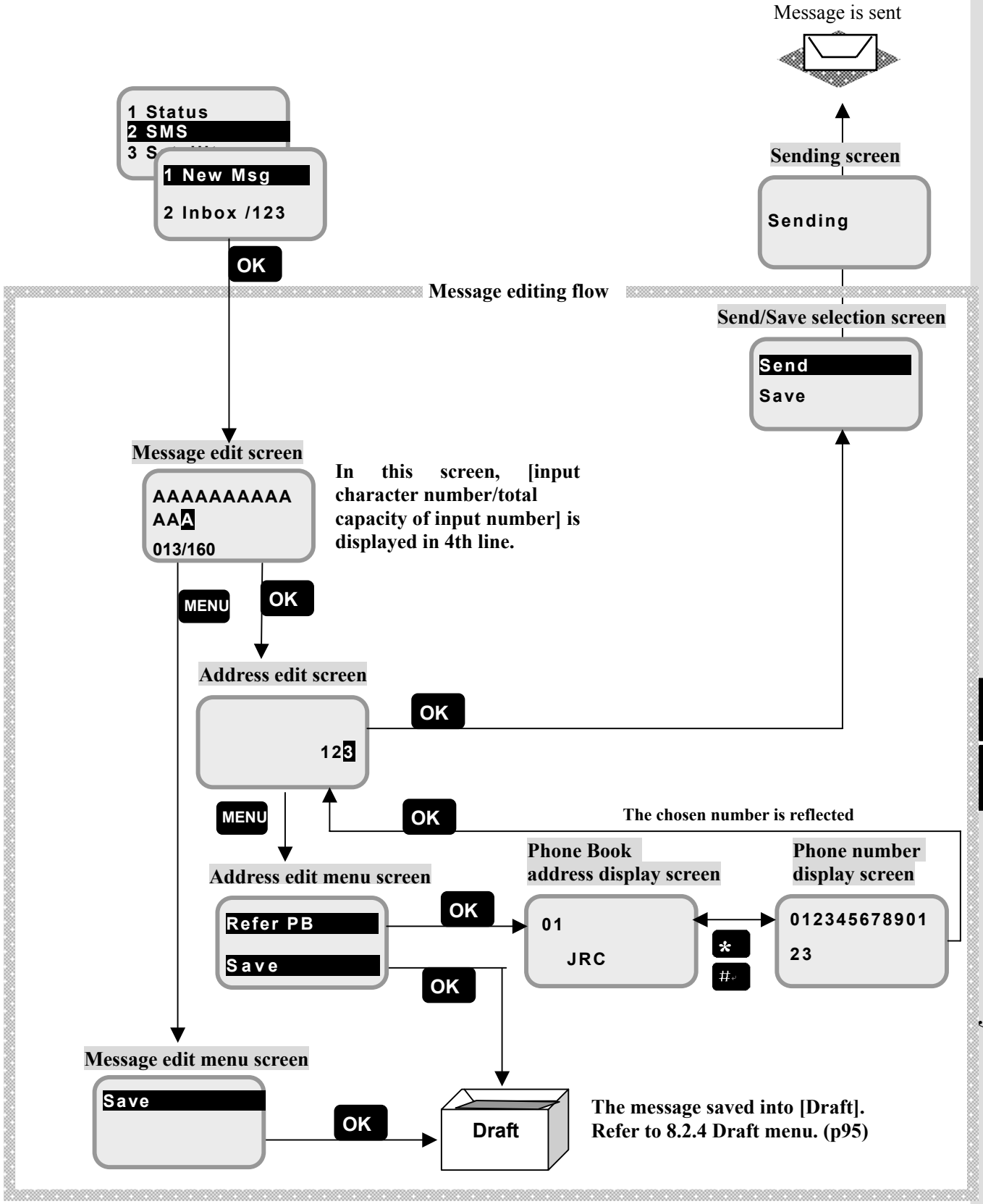
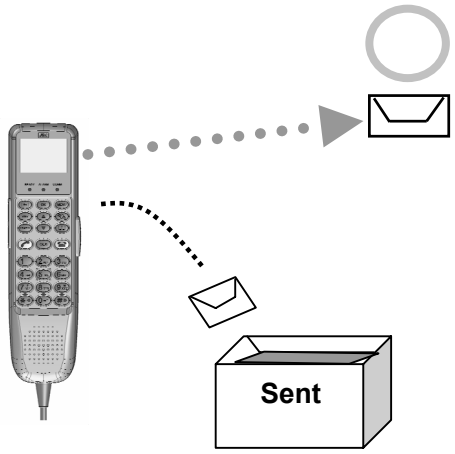


Fig. 8.2.1a New Msg menu

When the sending is succeeded: **the sent message is saved in [Sent] of SMS menu**



Address edit screen

Address ?
123

When the [**Message editing flow]** (p91) is completed and OK is pressed, the screen transits to [Send/Save selection screen].

OK

Send/Save selection screen

Send
Save

Select [Send] and press OK if you want to send the message.

OK

Sending screen

Sending

[Sending screen] is displayed in a few seconds. Message sending is completed and sent message is saved in [Sent] menu.

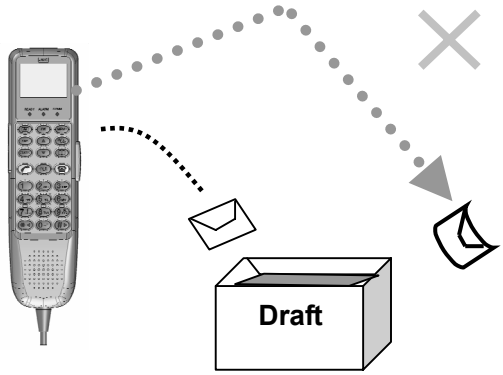
SMS screen

1 New MSG
2 Inbox /123

SIM data is reloaded automatically and the screen returns to [SMS screen].

Fig. 8.2.1b
Screen transition of successful sending

When the sending is failed: the sent message is saved in [Draft] of SMS menu



Address ?
123
Send
Sending

OK

Sending error screen

Error

When sending the message is failed, [Sending error screen] is displayed.
The unsent message is saved in [Draft] menu.

SMS screen

1 New MSG
2 Inbox /123

Fig. 8.2.1c
Screen transition of failed sending

8.2.2 Inbox menu (MENU + 2 + 2)

In this menu, user can read, reply, forward, and delete the received messages.

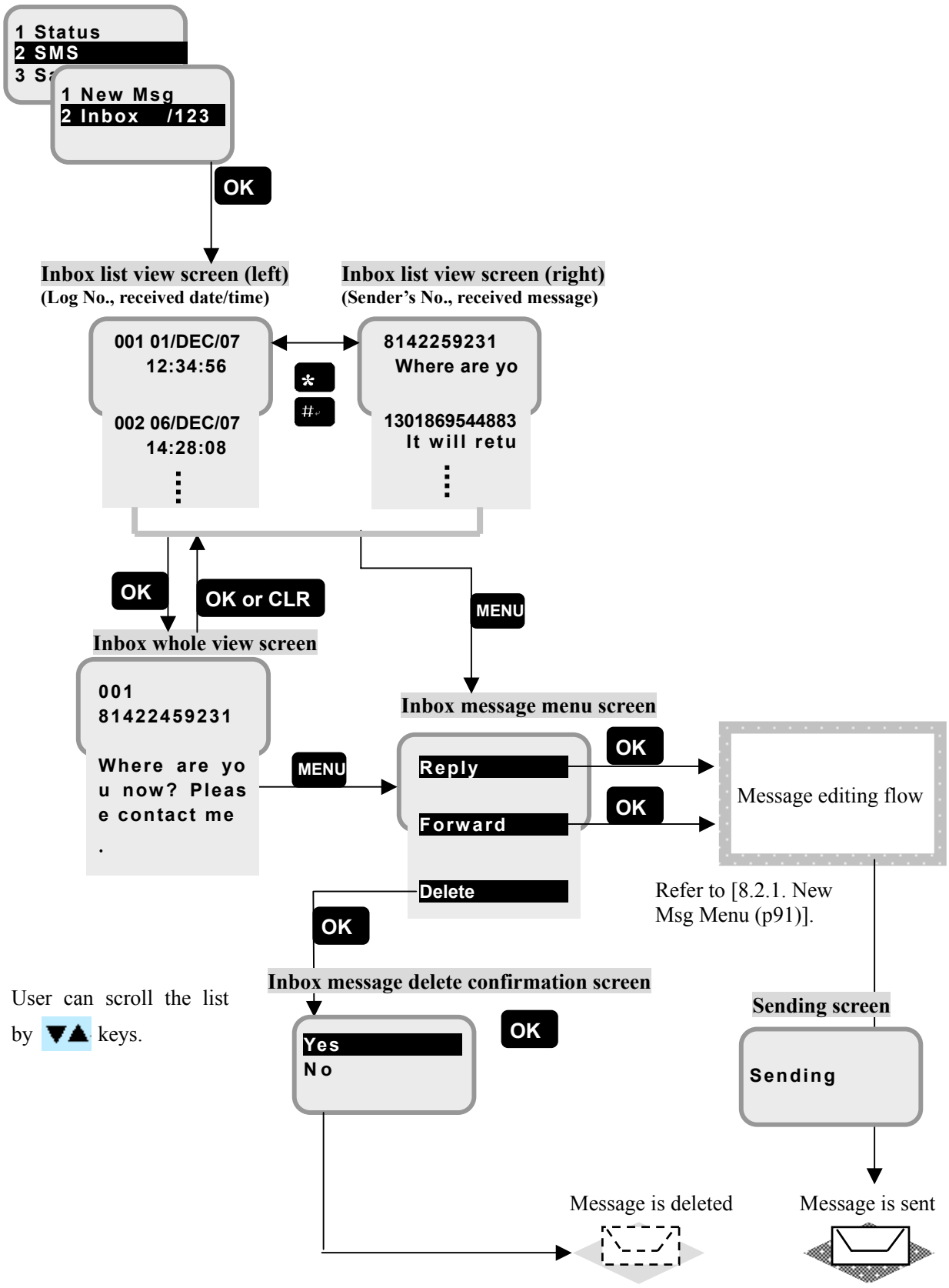


Fig. 8.2.2 Inbox menu

8.2.3 Sent menu (MENU + 2 + 3)

In this menu, user can refer, resend, forward, and delete the sent messages.

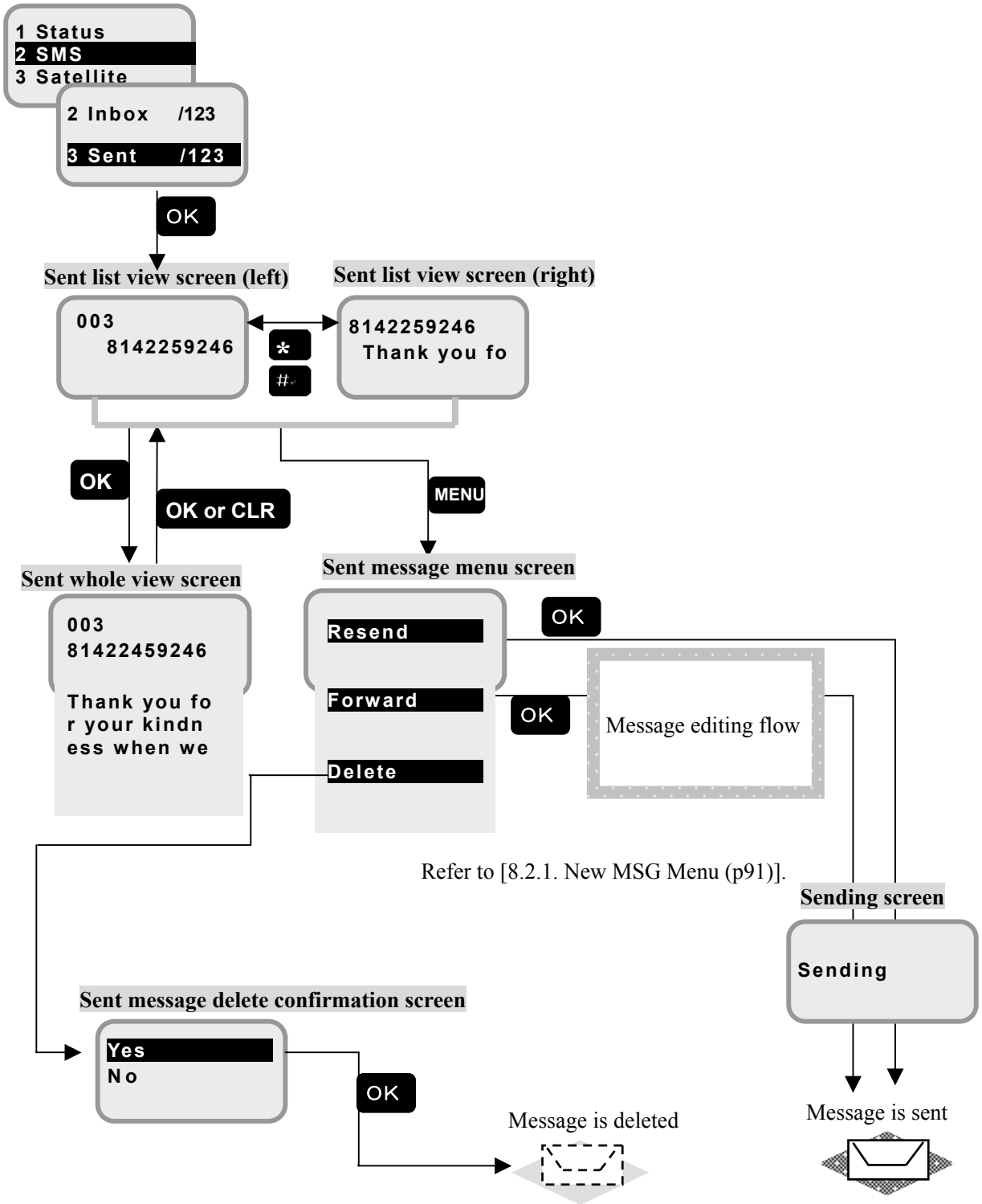


Fig. 8.2.3 Sent menu

8.2.4 Draft menu (MENU+ 2+4)

In this menu, user can refer, edit, send, and delete the unsent messages.

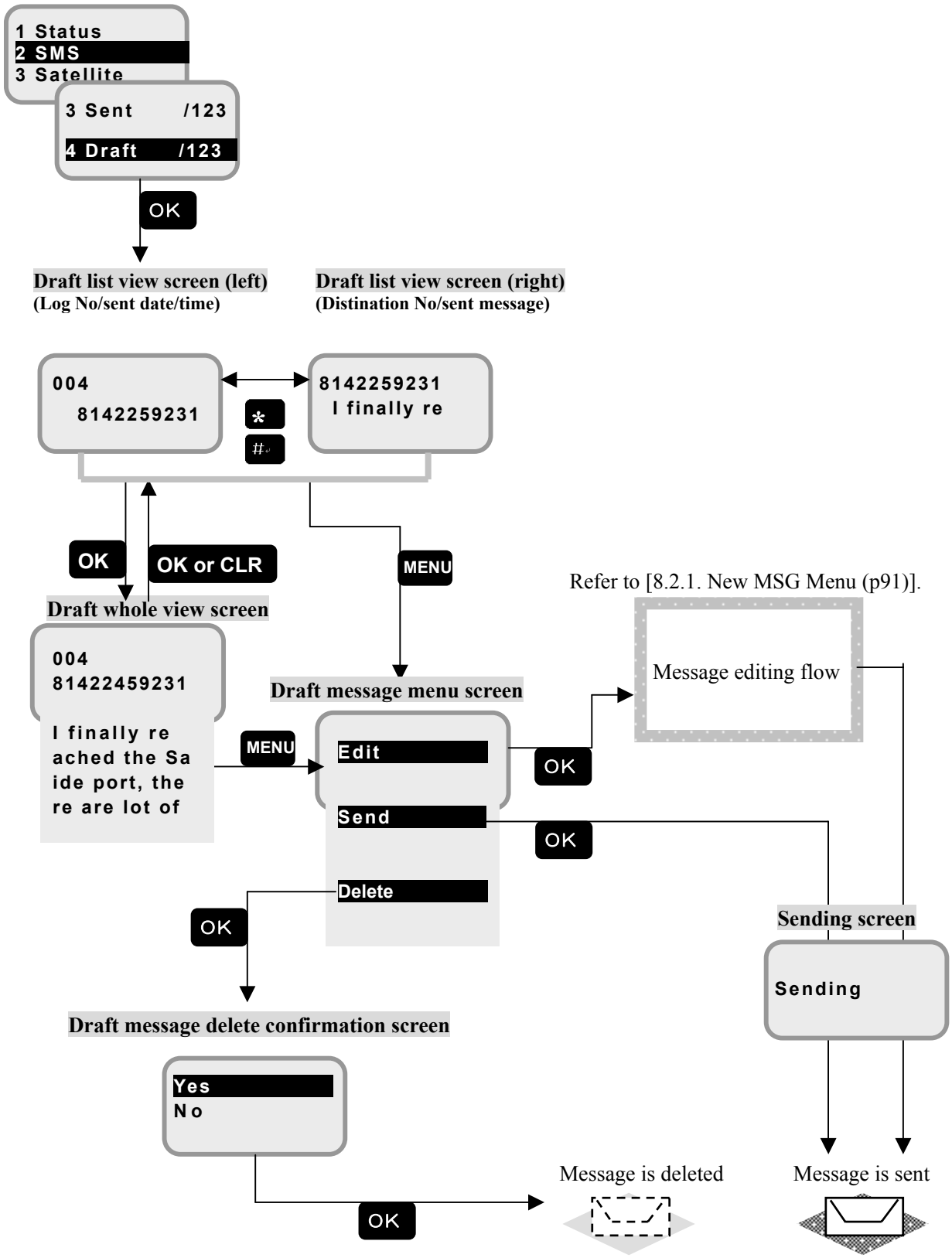


Fig. 8.2.4 Draft menu

8.2.5 Setting menu (MENU+ 2+ 5)

In this menu, user can refer the used amount of mailboxes, delete all messages at once, and set the details of SMS service.

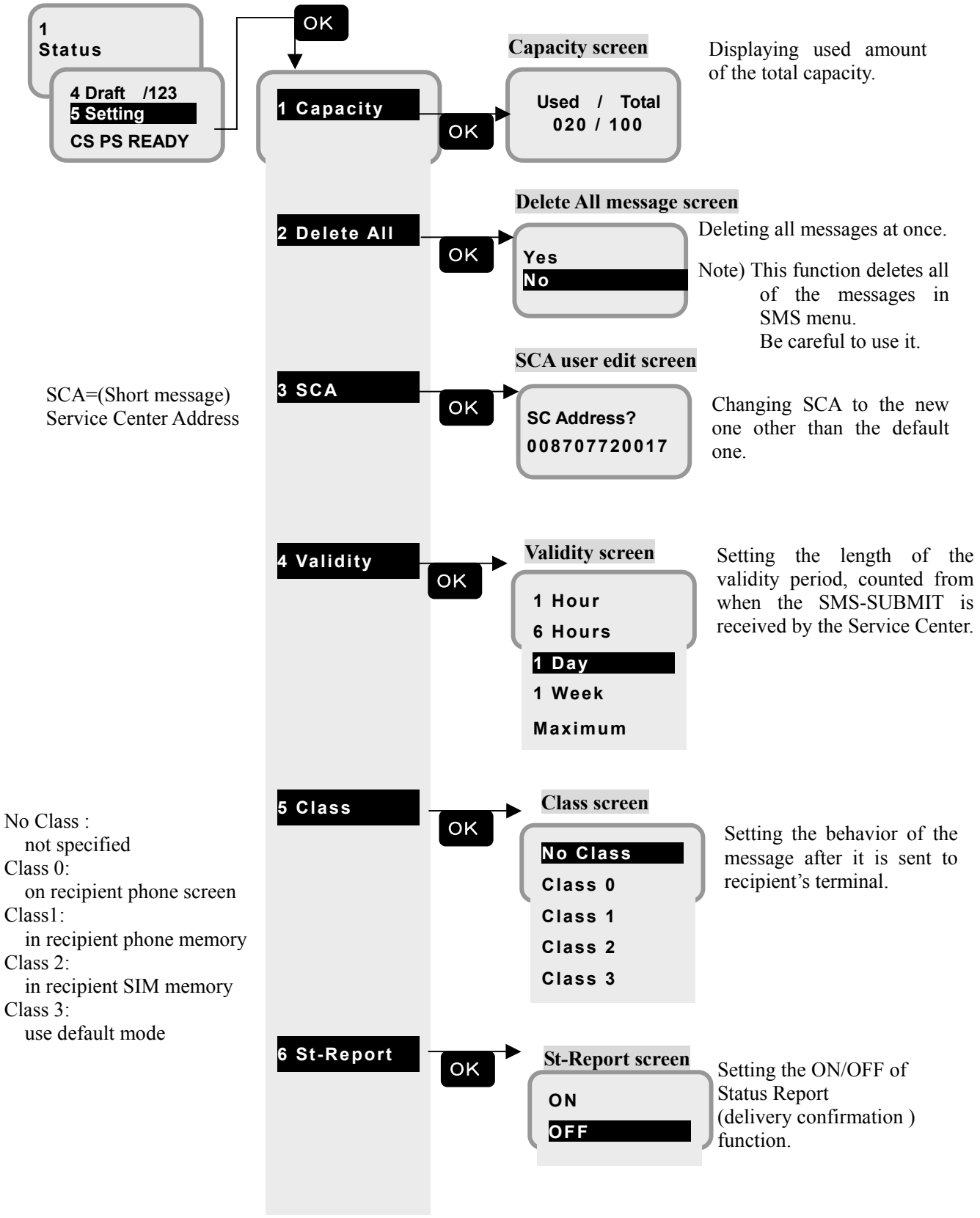


Fig. 8.2.5 Setting menu

8.3 Satellite menu (MENU + 3)

In this menu, user can display the status of satellite including ocean region, and spot beam No.

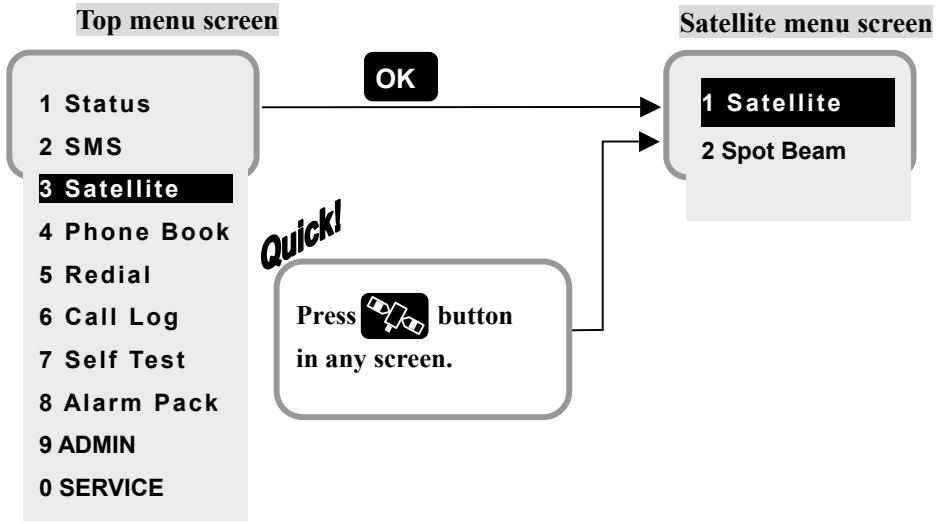


Fig. 8.3 Satellite menu screen

8.3.1 Satellite display (MENU + 3 + 1)

Currently selected satellite is denoted by "*".

Satellite can be changed in this screen. Select the preferred satellite and press OK button. The JUE-250 will search the most suitable satellite if "AUTO" is chosen.

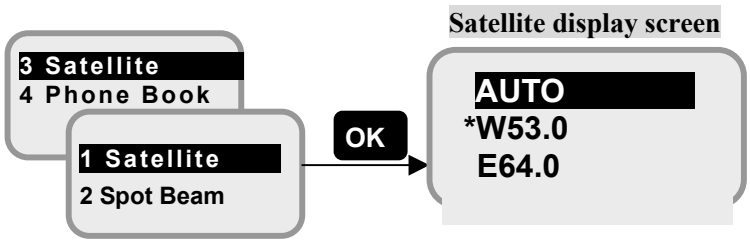


Fig. 8.3.1 Satellite selection screen

8.3.2 Spot Beam ID display (MENU + 3 + 2)

In this menu, user can display the ID of Spot Beam.

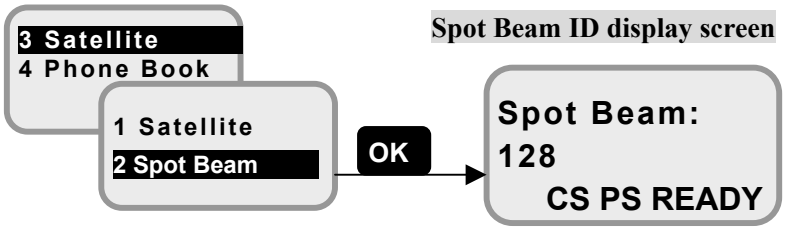


Fig. 8.3.2 Spot Beam ID display screen

8.4 Phone Book (Speed dial) menu (MENU + 4)

In this menu, the user can display and edit the Phone Book. Refer to [5.1.2 Using Phone Book (Speed dial)](p43) about dial-up procedure.

Press 📖 button from [Idle screen], or select [4.Phone Book] from Top menu screen, then [Address display screen] is displayed. This screen displays abbreviated number and person's name.

Press * or # to display the full number. The screen is switched to [Telephone number display screen].

Press **MENU** button with [Address display screen] or [phone number display screen] opened, to register, change, or delete the data. The screen is changed to [Operation selecting screen](Press **OK** button at this step or off-hook the Handset, to go to [Dial-up screen]). However, Secret Code authentication screen is displayed prior to this screen, when you have not logged-in as ADMIN user. Enter the secret code to go to [Operation selecting screen], or press **CLR** key to cancel the job and return to the previous screen.

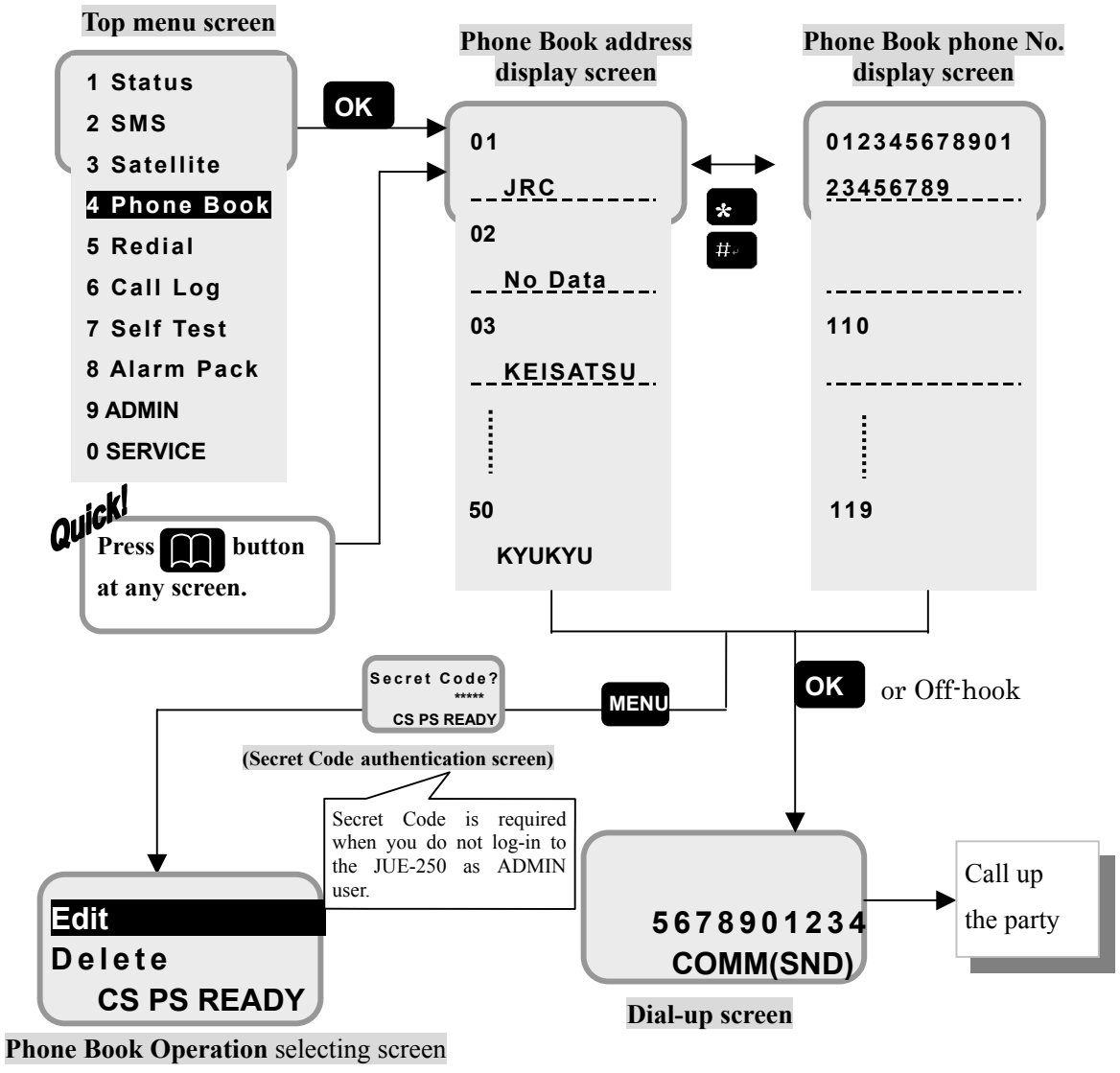


Fig. 8.4 Flow of Phone Book menu

8.4.1 Editing the Phone Book address (MENU + 4 + MENU)

In this menu, the user can register, change, and delete the address (name of party) and telephone number.

Press **MENU** button with the [Address display screen] or [Telephone number display screen] opened, then [Operation selecting screen] is displayed.

Select [Edit] and press **OK**, selected party is changed to [Address/Phone number editing screen]. The blinking cursor let you to enter the new address.

Enter the new address, press **OK** then enter the new number with alphanumeric buttons.

If [Delete] is selected, the data in the address is deleted instantly, and the screen is returned to [Address/Telephone number list display screen]. Only [No Data] is indicated for the address.

Example) Editing an existing address/ Phone number (blank address/phone number is displayed when data is filled in newly).

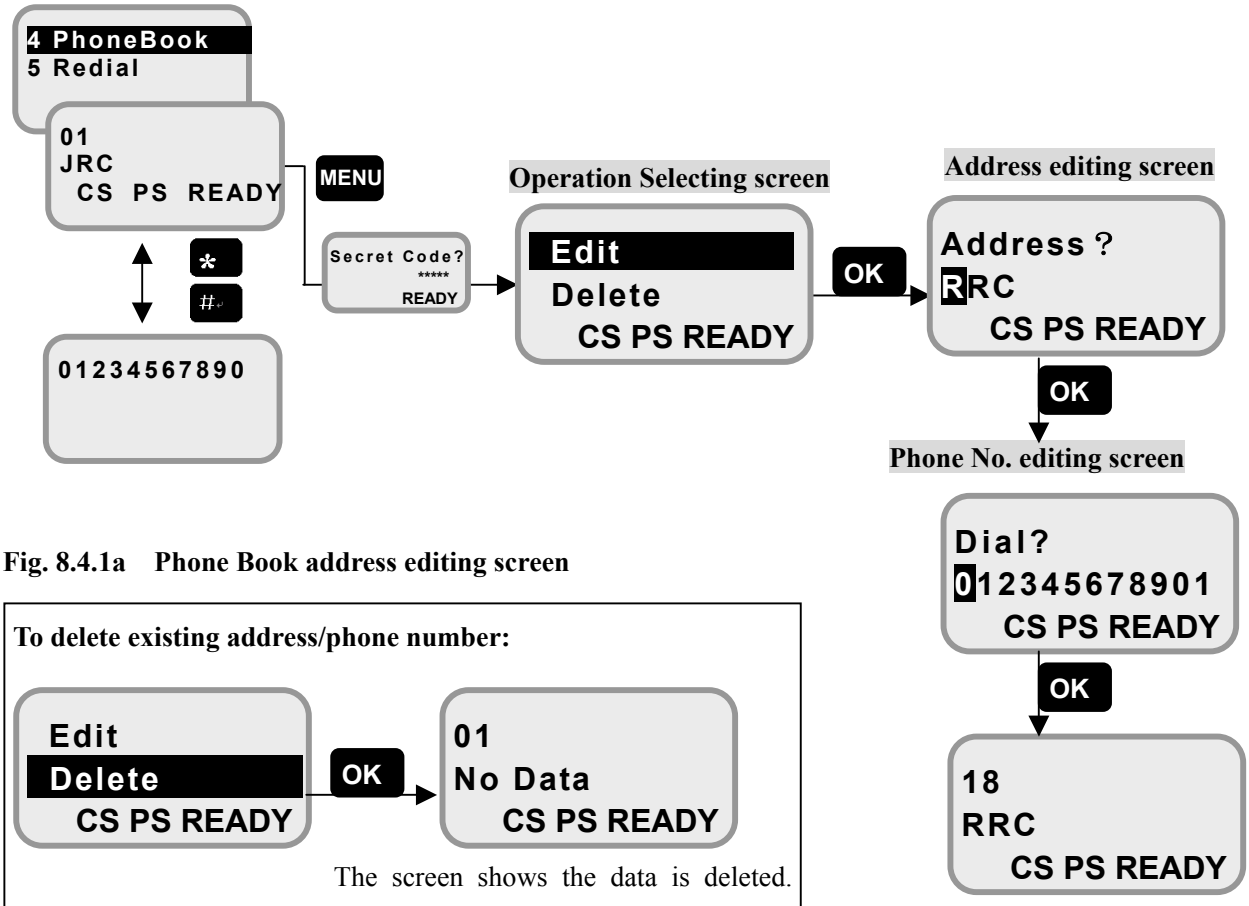


Fig. 8.4.1a Phone Book address editing screen

To delete existing address/phone number:

The screen shows the data is deleted.

Fig. 8.4.1b Phone Book data deleted screen

Overwritten screen is displayed.

8.5 Redial menu (MENU + 5)

In this menu, the user can display the Redial numbers up to 30.

First, [Redial history list screen] is displayed.

The screen displays Redial history number (01 to 30), and telephone number (if the number is longer than 10-digit, first several digits are not displayed).

To confirm the whole telephone number, press * or # to display [Redial history detailed screen]. The screen will show the full telephone number.

Scroll the screen with ▼▲ button to display the number dialed before and after.

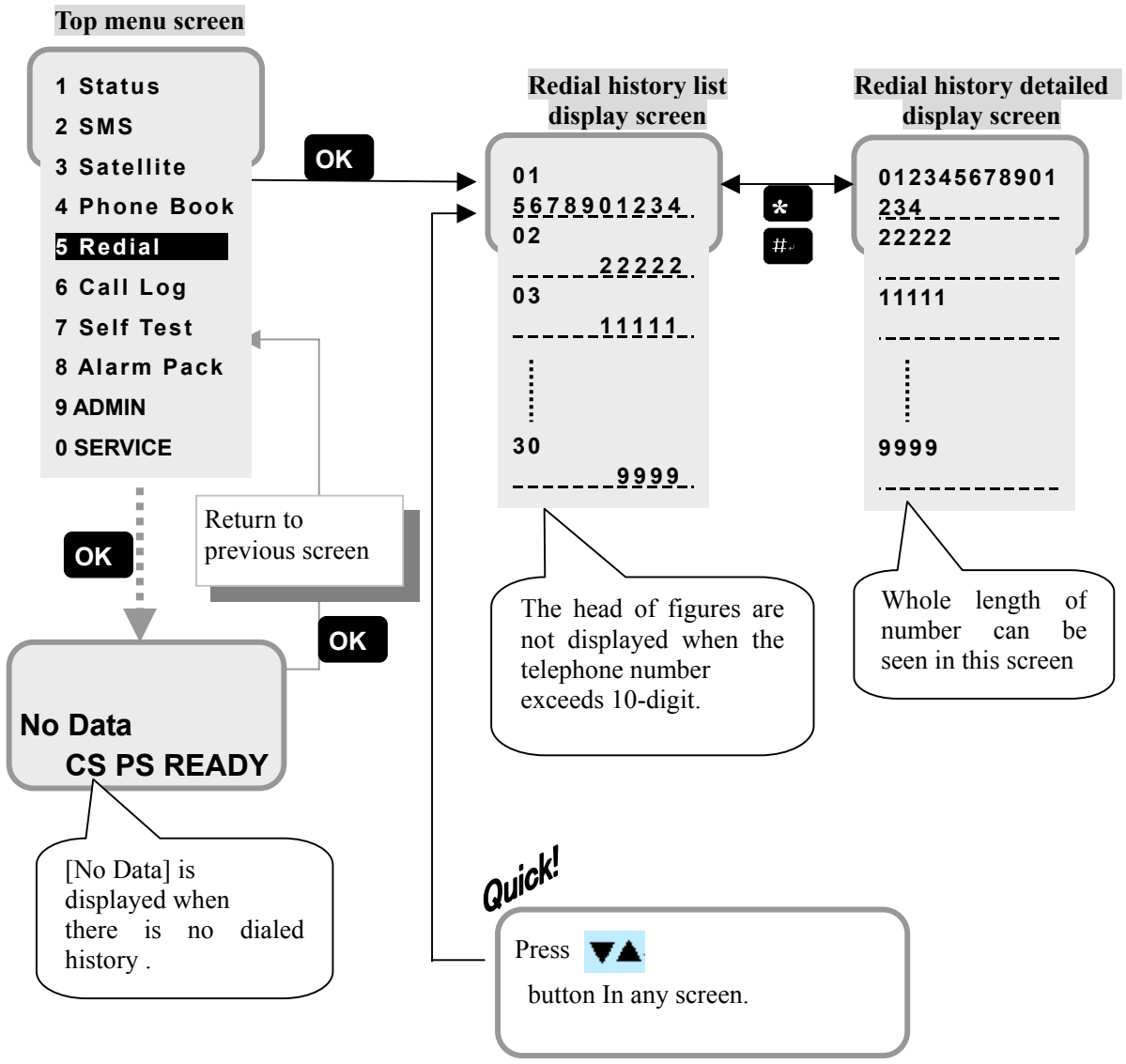


Fig. 8.5 Redial menu screen

8.6 Call Log (Communication history) menu MENU+6+1~5

In this menu, user can display the Call Log (Communication history) of respective communication type.

Call Log is displayed in 5 service types, VOICE, FAX, STANDARD, STREAMING, and SMS. They are divided into three kinds of screens, BOTH (send and receive), SND (send only), and RCV (receive only).

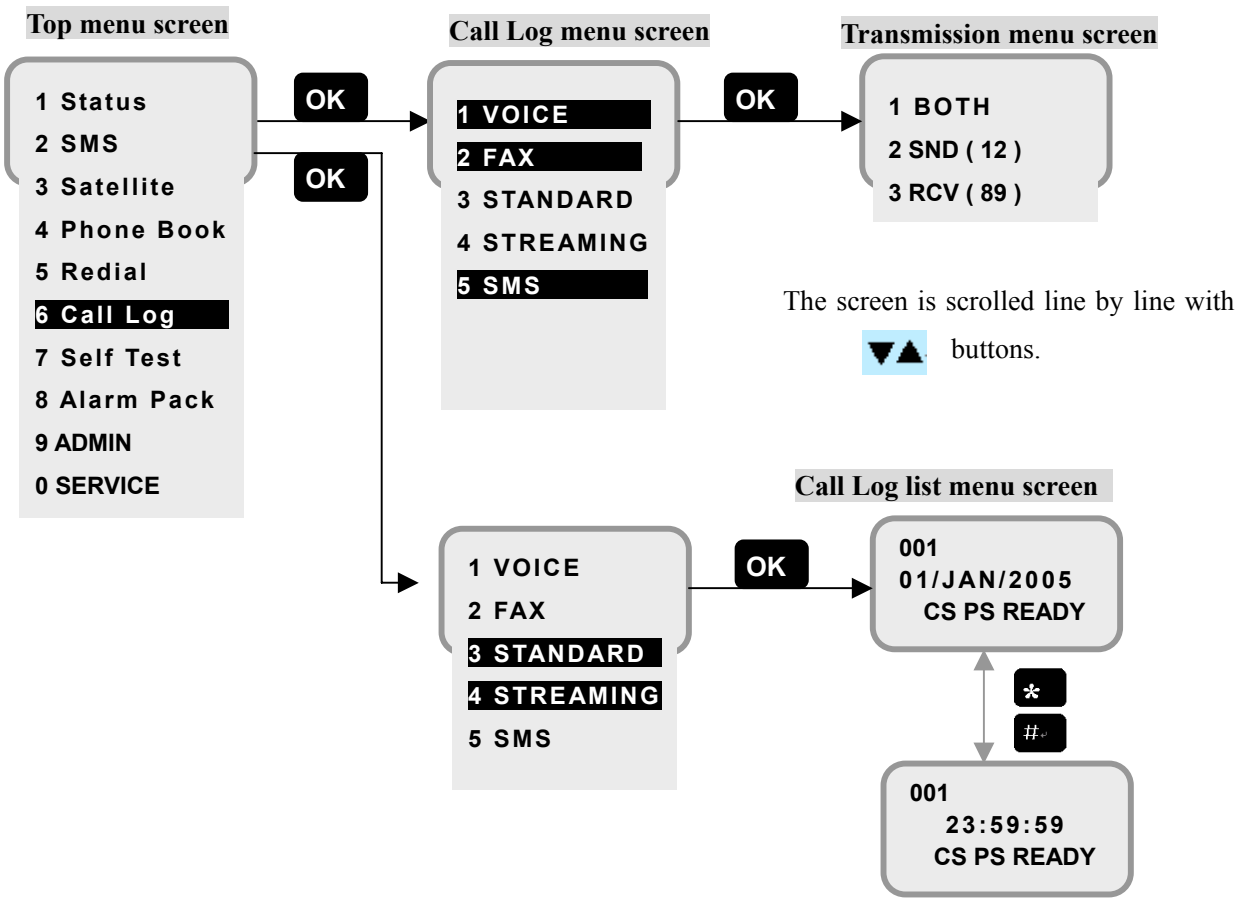


Fig. 8.6 Call Log menu screen

* [SND] and [RCV] call log stores maximum 100 data, respectively.
[BOTH] call log stores latest 100 data of above both directions.

* When [3 STANDARD] or [4 STREAMING] is selected, [Transmission menu screen] is not displayed and the screen is transited to [List menu screen] directly, because they have no direction like [SND] or [RCV].

8.6.1 Call Log list menu (MENU+6+1+1 to 3)

In this menu, user can display the detailed information of selected communication log.

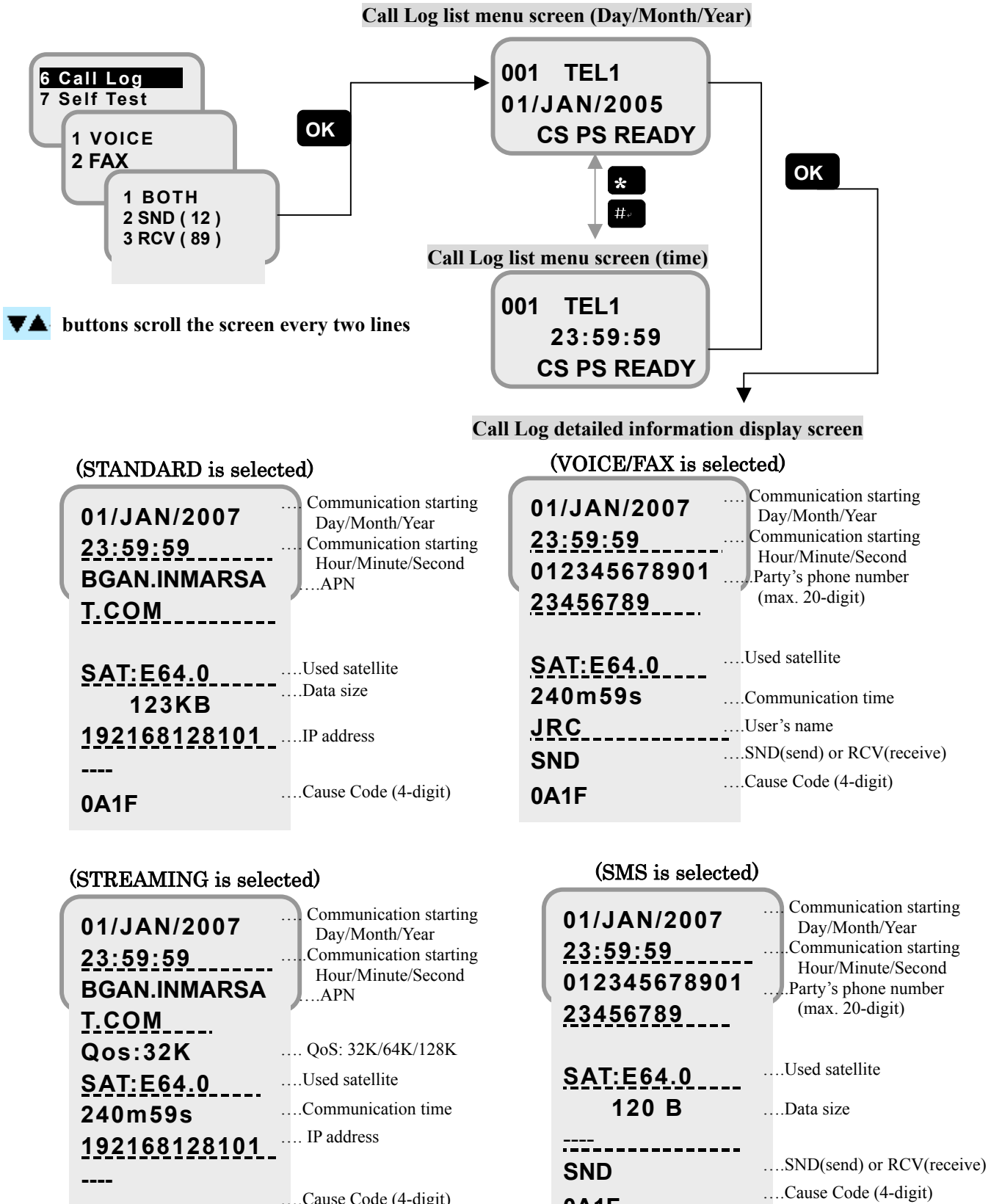


Fig. 8.6.1 Call Log list menu

8.6.2 Call Log authentication and deletion (MENU+6+ MENU)

In this menu, ADMIN user can delete the Call-Log. To delete, ADMIN user must once press through [Call-Log authentication screen] entering secret code..

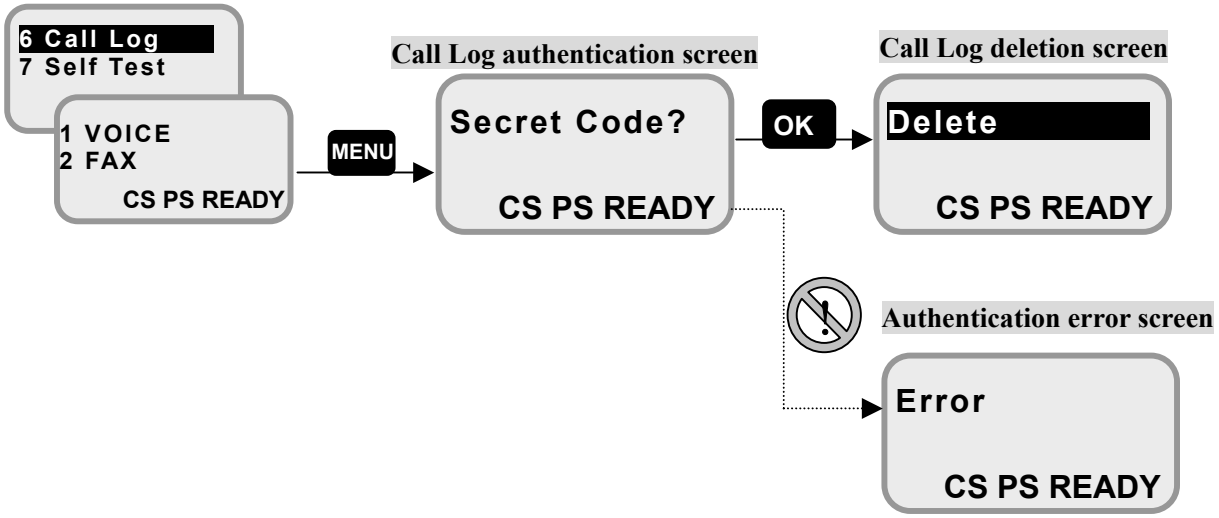


Fig. 8.6.2 Call Log authentication and deletion screen

8.7 Self Test menu (MENU+7)

In this menu, user can display the results of Self Test, which diagnoses the communication status of ADE and Handset.

[GOOD] means the status is good, [FAIL] means communication with the unit is impossible for some reason.

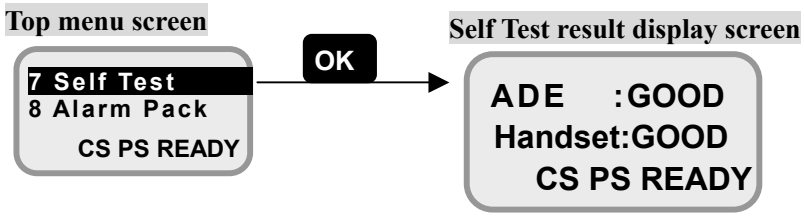


Fig. 8.7 Self Test menu screen

8.8 Alarm Pack menu (MENU+8)

In this menu, user can display the latest 10 alarms.

Select [Alarm Pack] from Top menu screen and press OK button, then [Alarm history view menu screen] (Displays the Day/Month/Year) is displayed. It displays from the latest one.

To confirm the more detailed time, [Alarm history detailed menu] (displays recorded Hour/Minute/Second of each alarm) is displayed with the * or # button pressed.

In both screens, select the preferred number and press OK button with selecting history number by cursor.

Then [Unit selection menu] screen is displayed with the * placed on the device where alarm had occurred. Select the device then press OK button.

Then [alarm display screen] of respective unit is displayed.

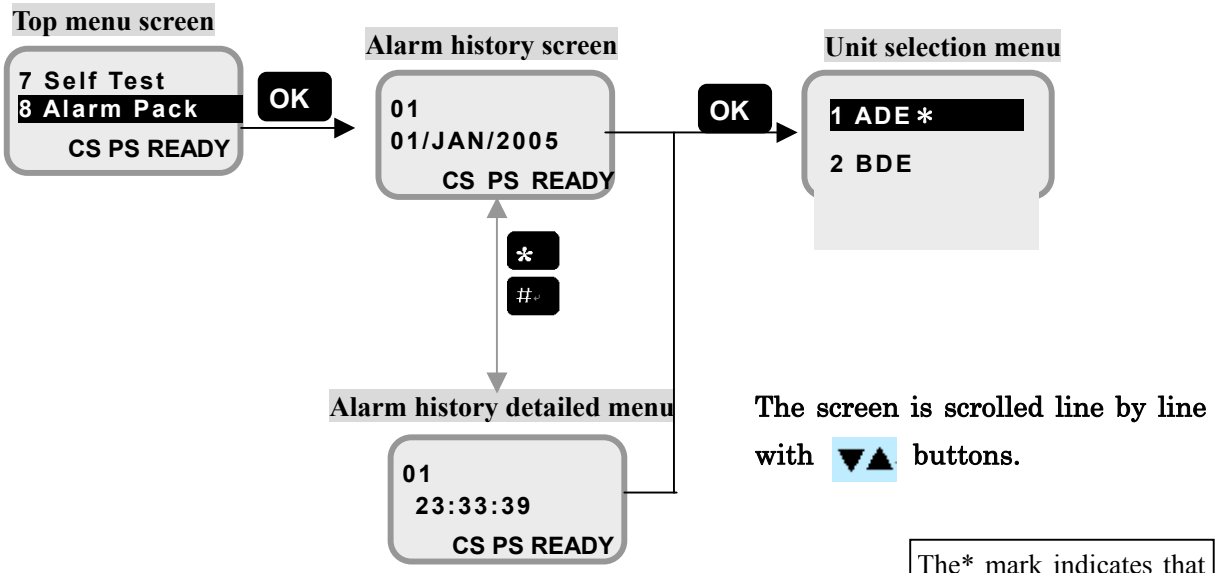


Fig. 8.8 Alarm Pack menu screen

8.8.1 Unit selection menu for Alarm Pack (MENU+8)

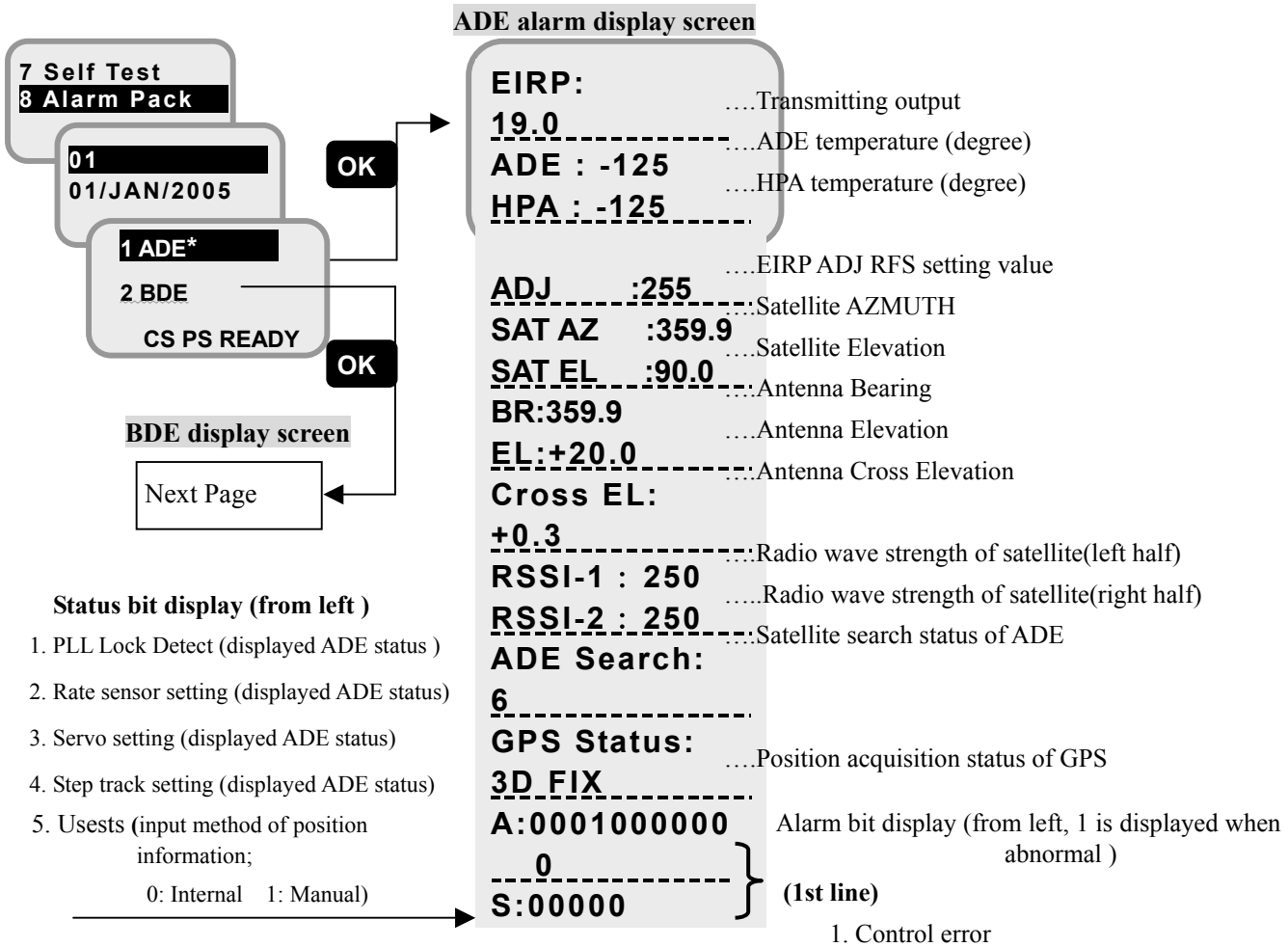


Fig. 8.8.1a Unit selection menu for Alarm Pack (ADE)

*Explanation of software upgrade error display (p106)
（Below numbers are displayed to XX, YY, ZZ. [,] is displayed as delimiter when the number is 1-digit (e.g. 3,0,0,).

XX:Status when failed

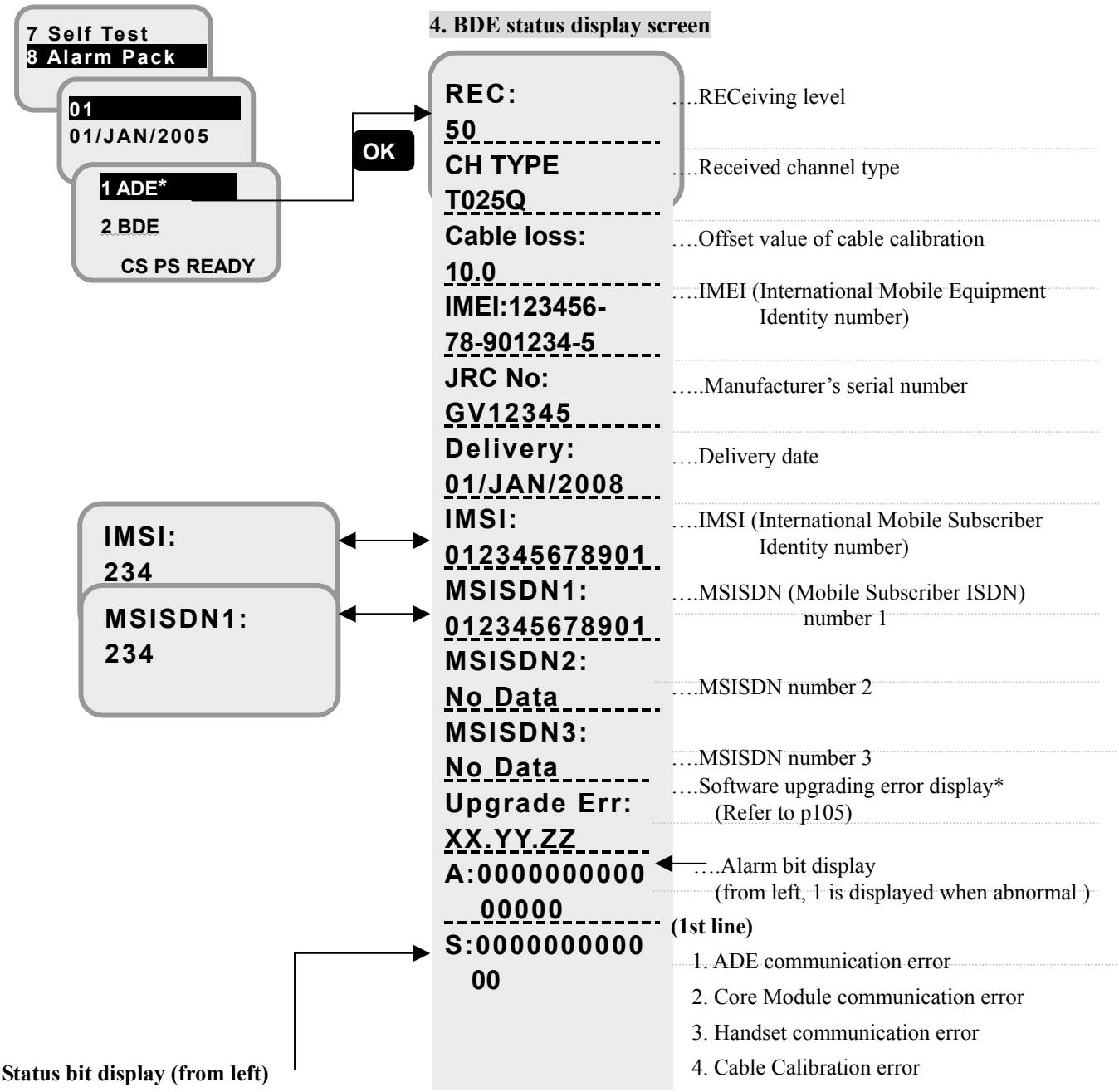
1. Initial status
2. IBchecking
3. IB updating
4. ADE update preparing
5. Activating
6. Checking activation
7. ROM erasing
8. Resetting
9. Checking ROM erasing
10. Transmiting
11. Transmission terminated
12. Developing
13. Re-writing
14. Checking ROM

YY: Error No. when IB software upgrade is failed

1. No error
2. File name error
3. IB image error (CRC/ID/length)
4. Data fowarding error
5. CM no reply
6. IB backup is failed

ZZ : Error No. when ADE software upgrade is failed

0. No error
2. File name error
4. Data fowarding error
5. CM no replay
7. ADE image error（CRC/ID/length）



Status bit display (from left)

(1st line)

1. Backup application of IB (0：not activated, 1：activated)
2. Tracking type (0：Signal tracking, 1：GYRO)
3. GYRO type (0：NMEA, 1：Sync/Step)
4. Heading request (0:off, 1: on)
5. Type (0:Sync, 1:Step)
6.-7. Ratio (00:360X, 01:90X, 10:180X, 11:36X)
8. Direction of GYRO totation (0:NORM, 1:REV)
9-10. Serial output timing (00:50ms, 10:100ms, 01:1s, 11:RESERVE)

(2nd line)

11. Test status without GYRO signal (0:NORM, 1:TEST)
12. Error detection time (0:0.2s, 1:5s)

(1st line)

1. ADE communication error
2. Core Module communication error
3. Handset communication error
4. Cable Calibration error
5. Core Module reset
6. Core Module does not reply at AT level
7. GYRO communication error
8. GYRO I/F interruption does not occur although Sync is selected
9. GYRO I/F detected non-existed signal when Sync is selected
10. GYRO I/F detected non-existed signal when Step is selected

(2nd line)

11. GYRO I/F detected signal on R1 R2 when Step is selected
12. GYRO I/F WDT over flow
13. GYRO I/F program memory error
14. IB software upgrade is failed
15. ADE software upgrade is failed

Fig. 8.8.1b Unit selection menu for Alarm Pack (BDE)

8.9 ADMIN menu MENU+ 9

[ADMIN menu] which displays all menus for sets up status of the JUE-250.

Select [9 ADMIN menu] from [Top menu], and display each menu screen.

Identification screen is opened when user without ADMIN authority enters in this menu.

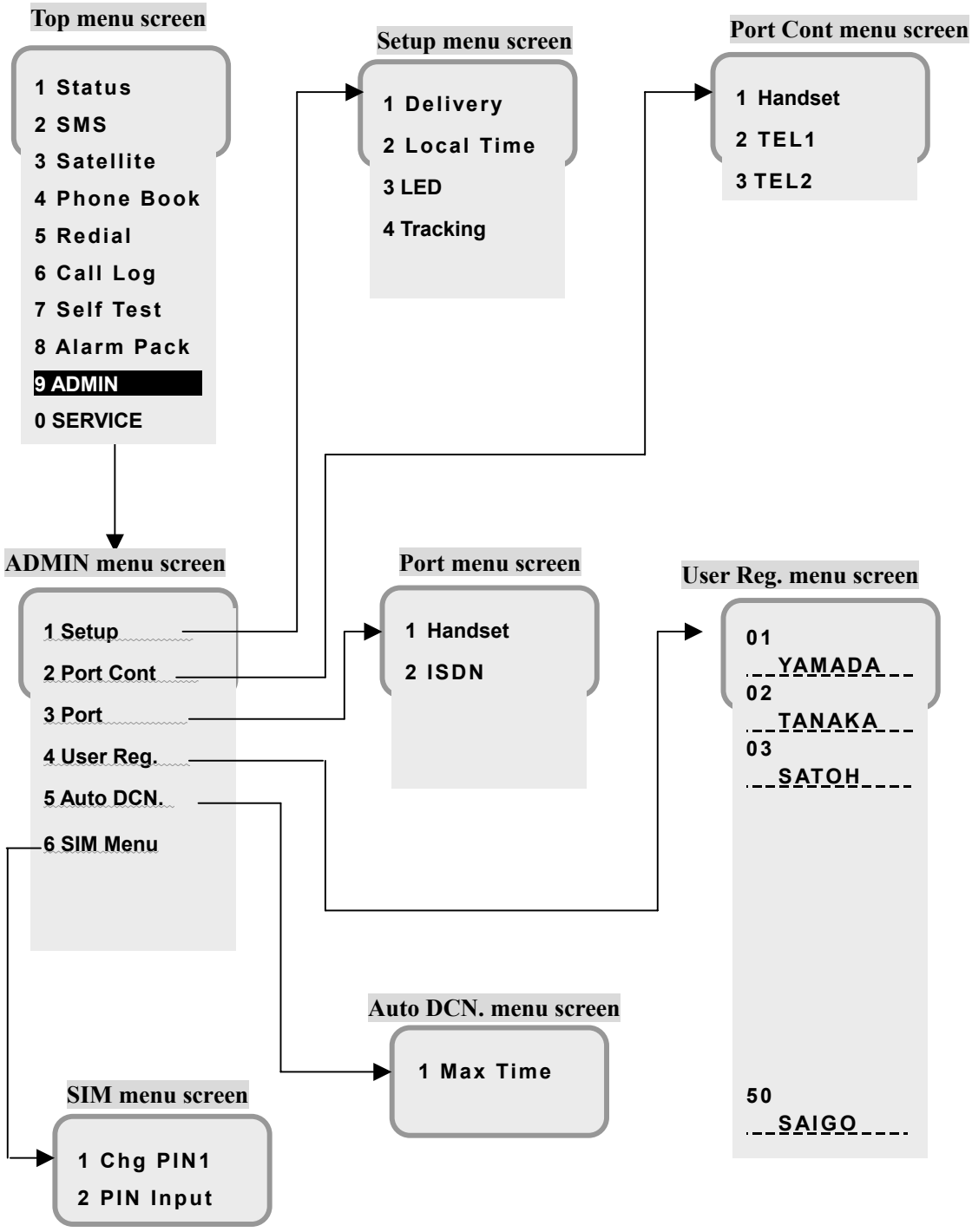


Fig. 8.9 Flow of ADMIN menu

8.9.1 Setup menu (MENU+ 9 +1)

[Set up menu] consists of;

1 **Delivery:** Delivery date of the JUE-250

2 **Local Time:** Time difference between Local time and Universal time

3 **LED:** Setting of Brightness level of main unit LEDs

4 **Tracking:** Selecting tracking system, AUTO (signal tracking) or GYRO tracking

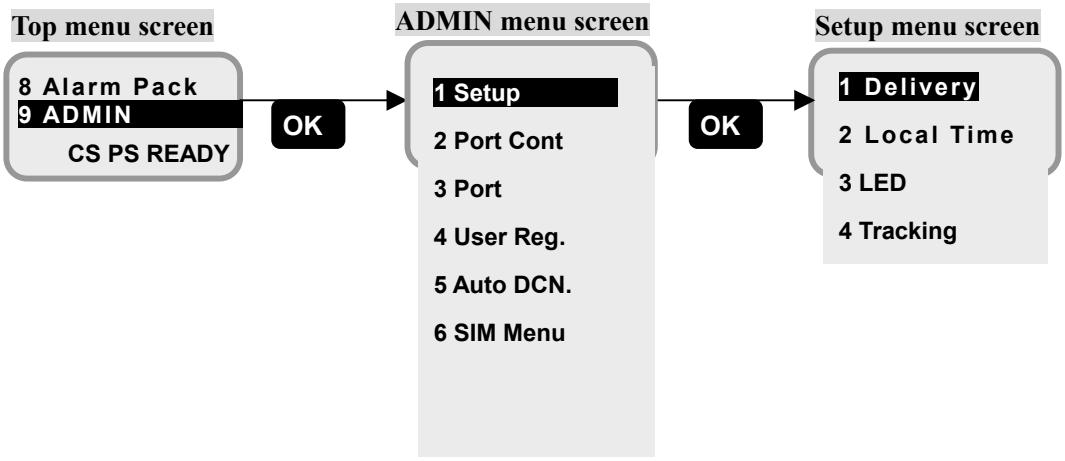


Fig. 8.9.1 Setup menu screen

8.9.1.1 Delivery setting (MENU + 9 + 1 + 1)

In this menu, the user can set up the delivery date of the JUE-250.

Select [1.Delivery] from Setup menu to display setting screens in order of Day, Month, and Year.

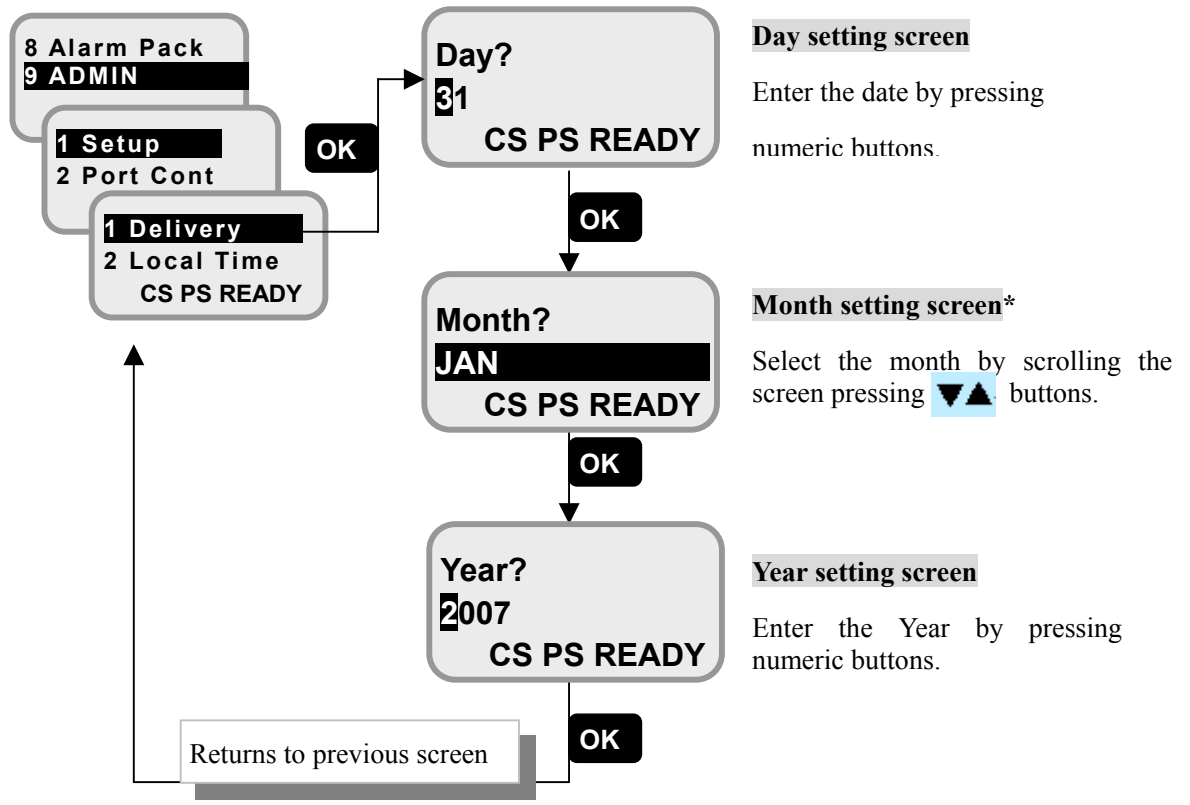


Fig. 8.9.1.1 Delivery menu screens

* ▲button displays Months in the order of [DEC-NOV-OCT-..] and the ▼ button reverses the order.

Delivery date does not only record the day when the JUE-250 was installed and communication commenced, but it helps to determine the guarantee term etc.

Accurate setting is recommended.

8.9.1.2 Local Time setting (MENU+ 9 +1 +2)

In this menu, the user can set up the time differences between UTC (Universal Time Coordinated) and Local time.

To display screens, select [2. Local Time] from [1.Setup].

First, ± setting screen is displayed. Select [+] when Local time is faster than UTC, and [-] when it is slower. Then press **OK** button.

Next, enter the time difference in [Time difference setting screen] by hours /minutes, with numeric buttons.

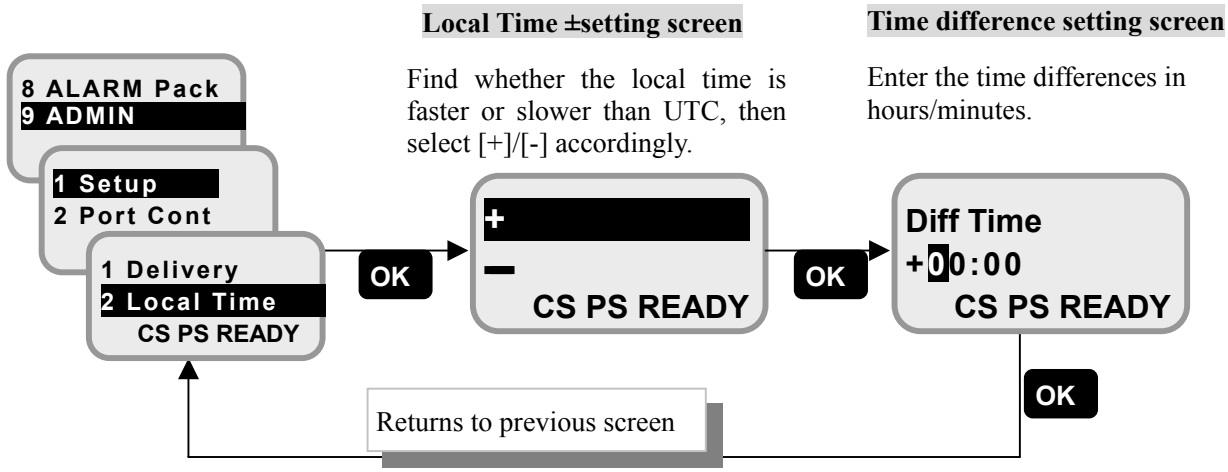


Fig. 8.9.1.2a Local Time menu screen

Example) Changing the display of Idle screen from UTC(14:03) to LT(23:03).
(Enter time difference +9hour)

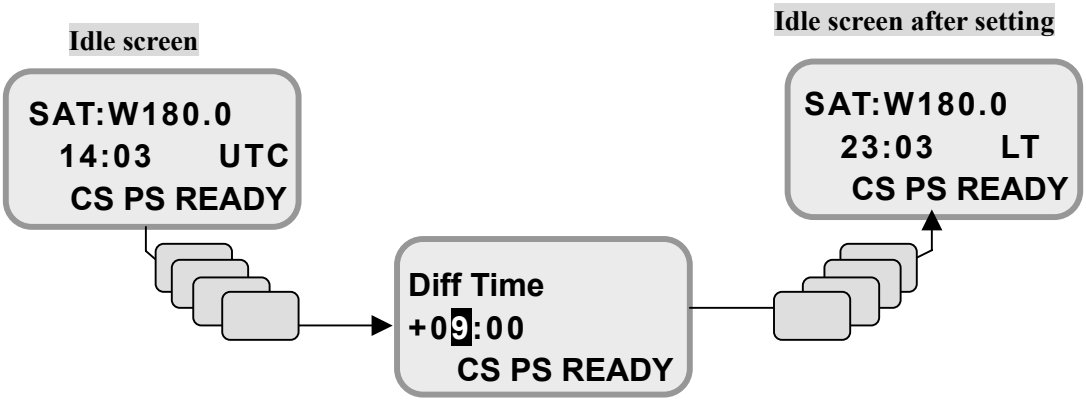


Fig.8.9.1.2b Example of setting Local Time

8.9.1.3 LED setting (MENU+ 9 +1 +3)

In this menu, the user can set the ON/OFF of LEDs on main unit.

Select [3. LED] from [Setup menu]. Then present setting is displayed on [LED menu setting screen].

To change the setting select ON or OFF by ▼▲ buttons and press OK .

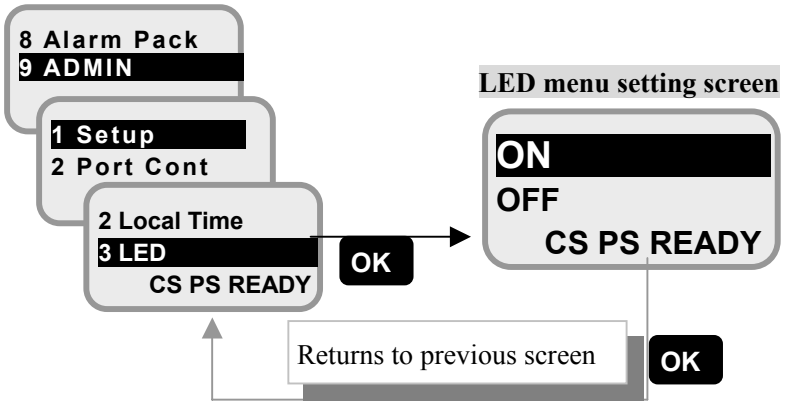


Fig. 8.9.1.3 LED Setting screen

8.9.1.4 Tracking setting (MENU+ 9 +1 +4)

In this menu, user can set the tracking system from [AUTO] (signal tracking) or [GYRO].

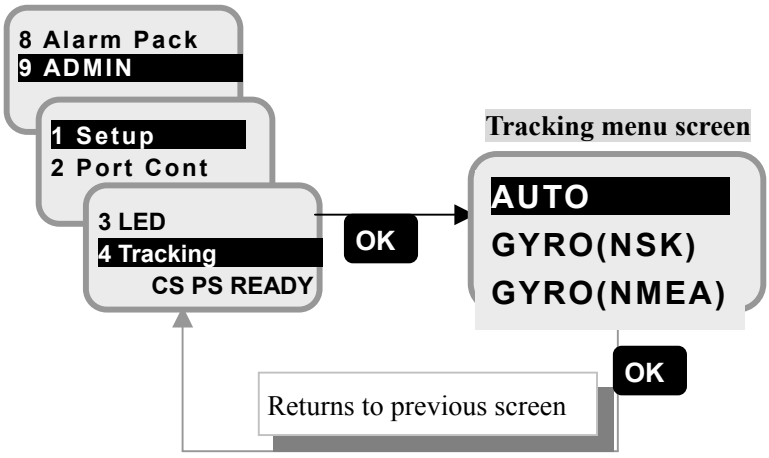


Fig. 8.9.1.4 Tracking Setting screen

8.9.2 Port Cont menu (MENU + 9 + 2)

In this menu, the user can set the use/non-use of Secret Code(On or Off), change voice volume (Normal or High) at the all port, and select service type (Voice or FAX) at the TEL1/TEL2 port.

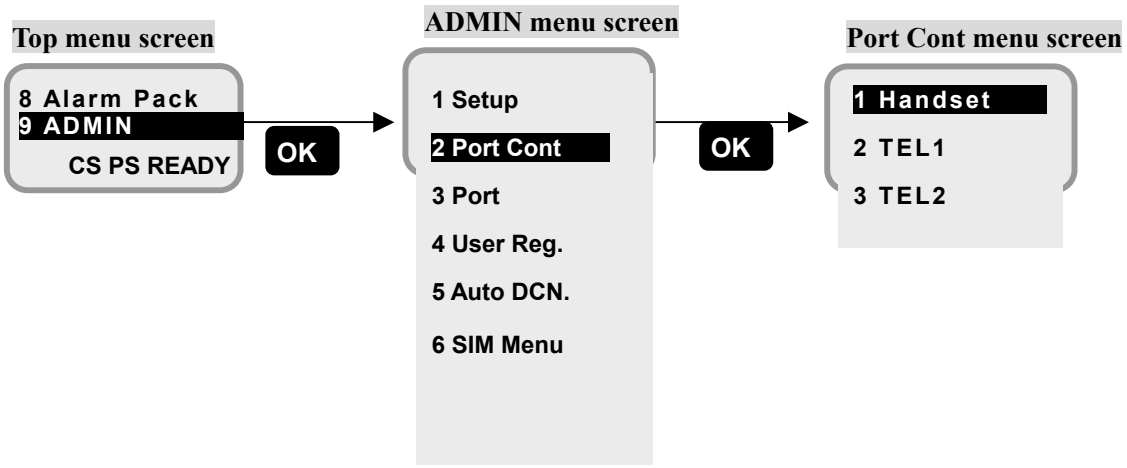


Fig. 8.9.2 Port Cont menu screen

8.9.2.1 Port Cont setting item selection menu (MENU+9+2+1 to 3)

In this menu, user can select setting items (on/off of using Secret code, voice volume, and service type).

Setting item of [Secret (code)] and [Volume] are common to each port, but [Type] (service type) is only available on TEL1/2 port.

Select the service type to TEL1/2 port, following the connection you want to set.

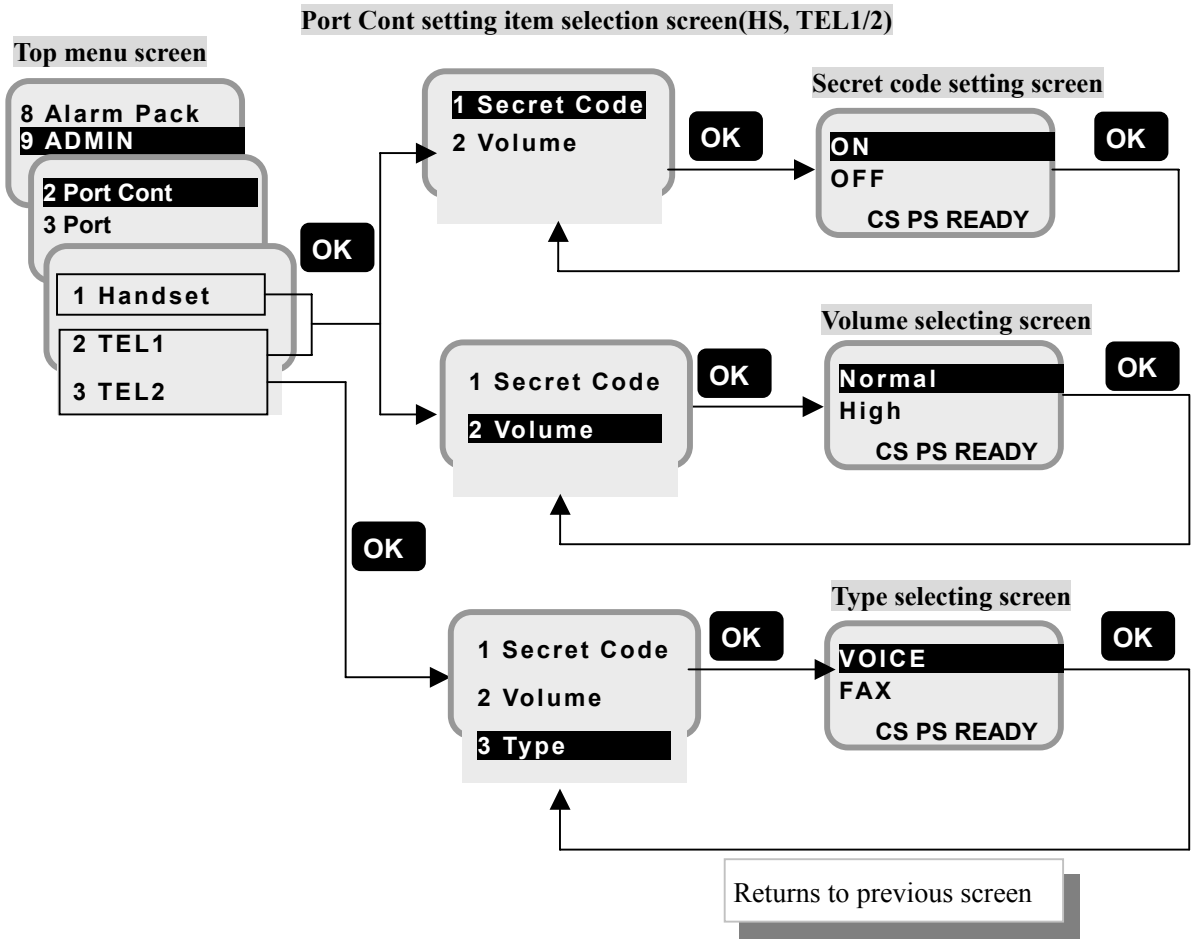


Fig. 8.9.2.1 Flow of Port Cont setting item selection menu

8.9.3 Port menu (MENU + 9 +3)

In this menu, the user can set the advanced setting of Handset, and MSN of ISDN port.

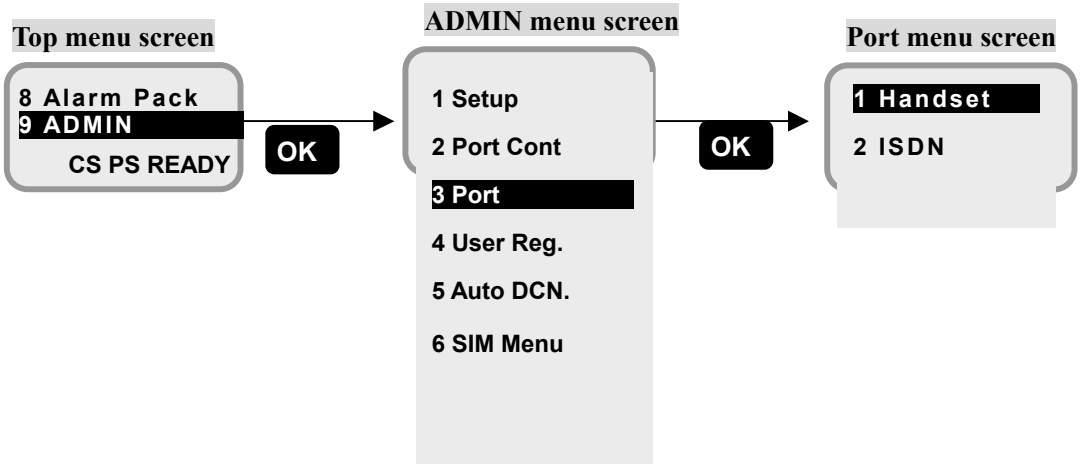


Fig. 8.9.3 Port menu screen

8.9.3.1 Handset advanced setting menu (MENU+9+3+1)

In this menu, the user can set the advanced settings of Handset (brightness of LCD screen backlight/LEDs, and volume /pattern of ringer tone, voice volume).

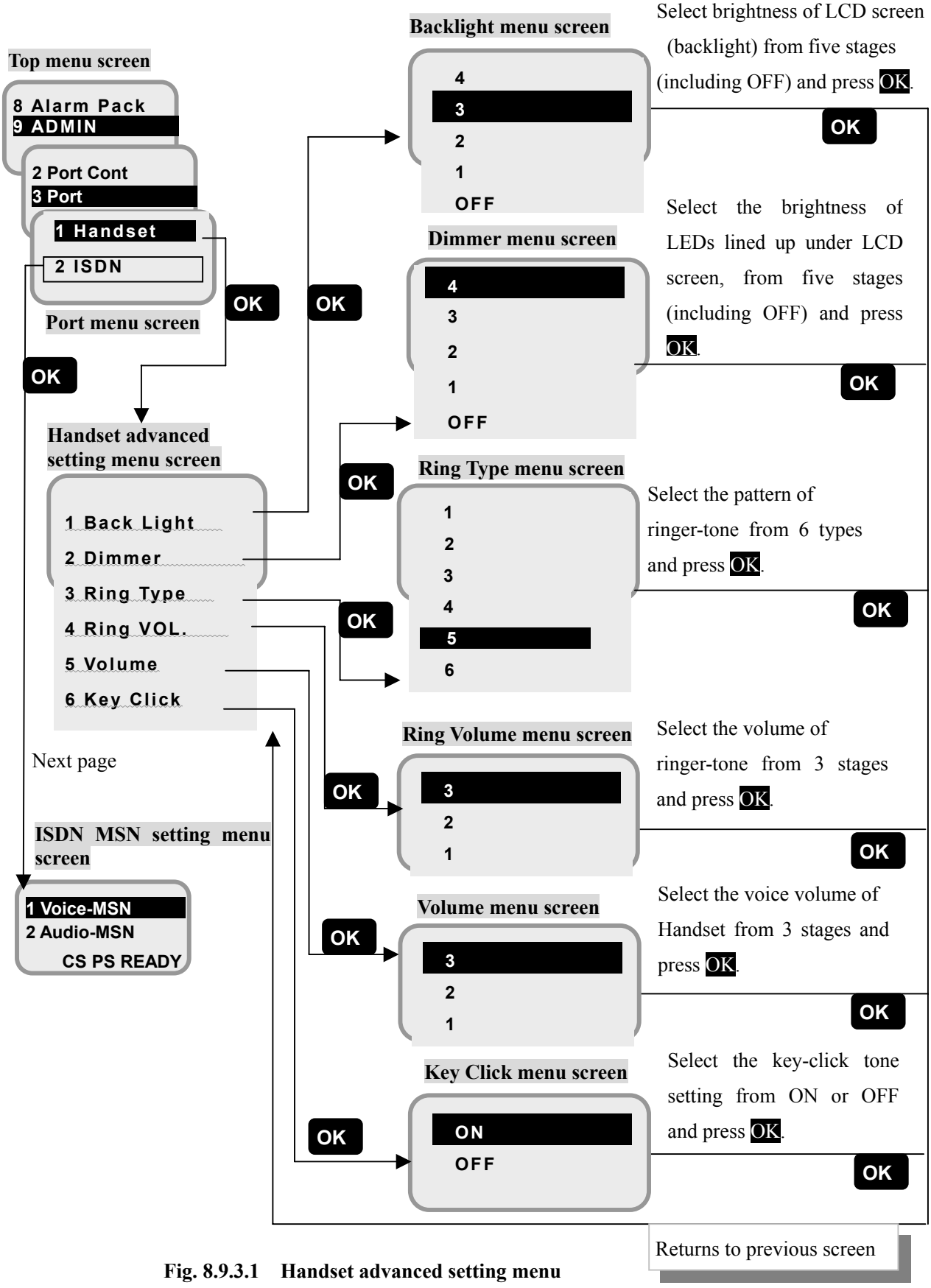
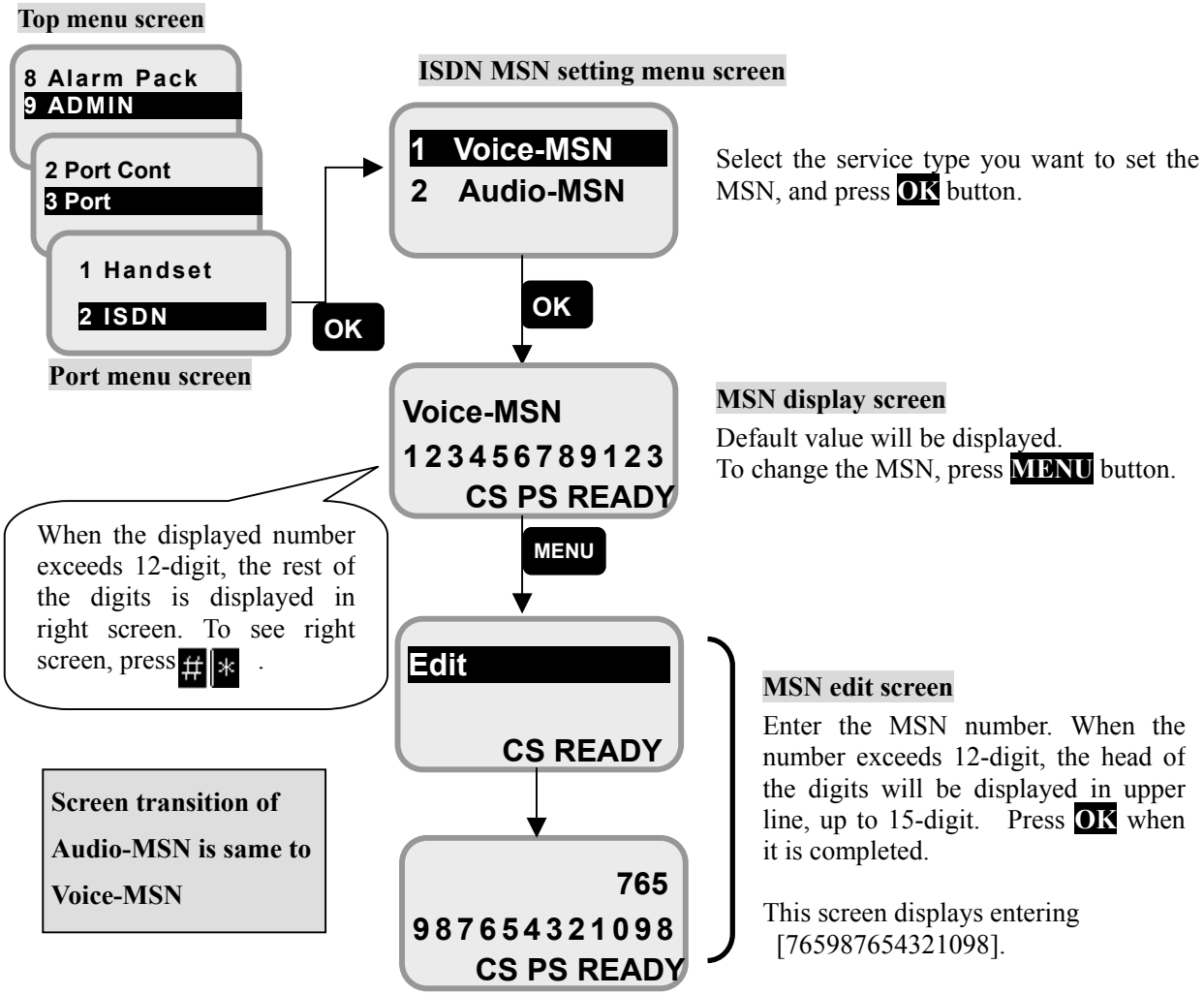


Fig. 8.9.3.1 Handset advanced setting menu

8.9.3.2 ISDN MSN setting menu (MENU+9+3+2+1 to 2)

In this menu, the user can set the MSN of ISDN port.


Top menu screen
8 Alarm Pack
9 ADMIN
2 Port Cont
3 Port
1 Handset
2 ISDN
OK
Port menu screen
ISDN MSN setting menu screen
1 Voice-MSN
2 Audio-MSN
Select the service type you want to set the MSN, and press OK button.
OK
Voice-MSN
123456789123
CS PS READY
MSN display screen
Default value will be displayed.
To change the MSN, press MENU button.
When the displayed number exceeds 12-digit, the rest of the digits is displayed in right screen. To see right screen, press # *
MENU
Edit
CS READY
MSN edit screen
Enter the MSN number. When the number exceeds 12-digit, the head of the digits will be displayed in upper line, up to 15-digit. Press OK when it is completed.
765
987654321098
CS PS READY
This screen displays entering [765987654321098].
Screen transition of Audio-MSN is same to Voice-MSN

Note

MSN display screen (left)

Voice-MSN
123456789123
CS PS READY

*

MSN display screen (right)

Voice-MSN
456
CS PS READY

MSN edit screen

765
987654321098
CS PS READY

MSN edit screen shows whole digits (even the number exceeds 12-digit) in single screen by showing 1st to 3rd digits in upper line, unlike the MSN display screen shows the 13th to 15th digits to next (right) screen.

Fig. 8.9.3.2 ISDN MSN setting menu

8.9.4 User Reg. menu (MENU + 9 + 4)

In this menu, the user can register User name and Secret Code. Input range of Secret Code is 0001 to 9000.

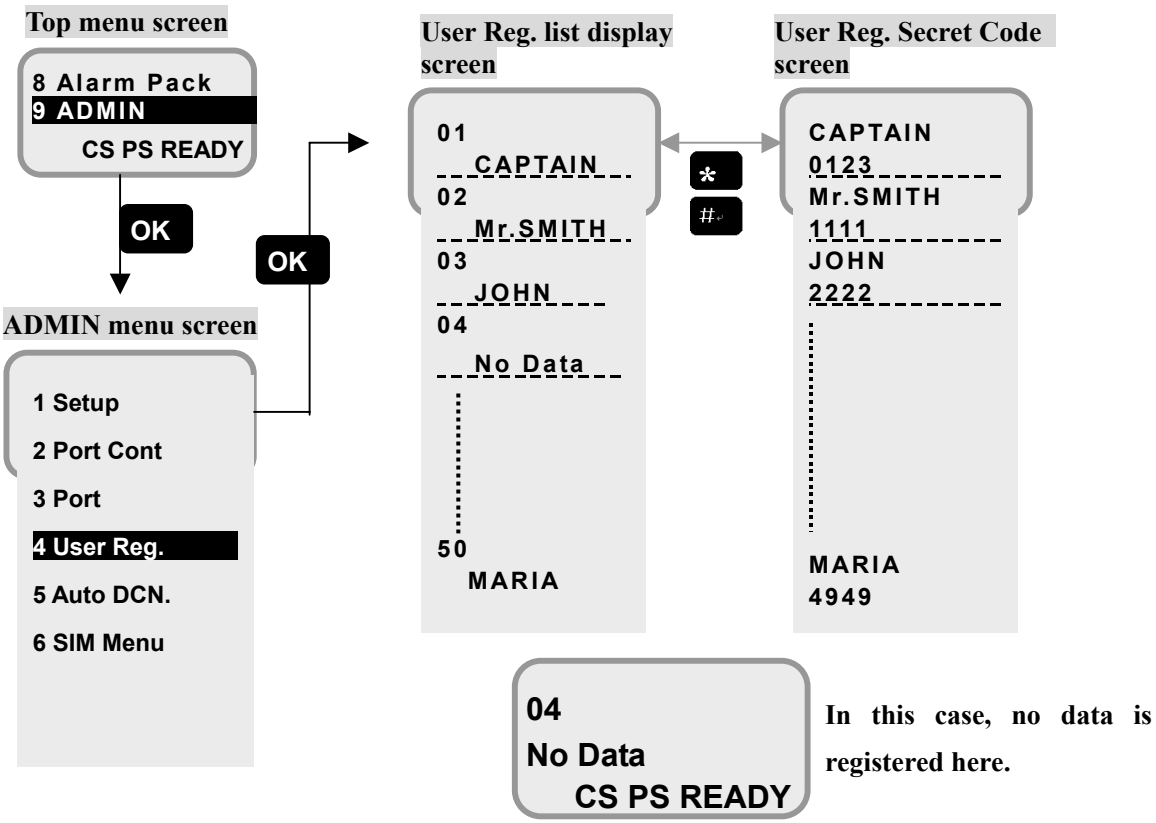


Fig. 8.9.4a User Reg. menu screen transition

Only one person who registered first, as [01], can be ADMIN user.

Persons registered from [02], are to be GUEST users.

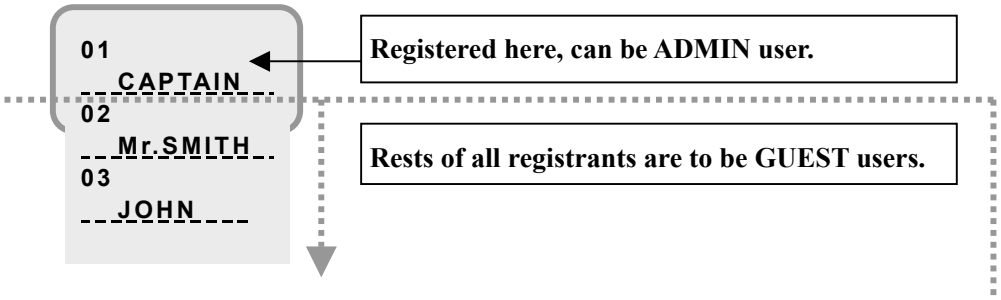


Fig. 8.9.4b Example of ADMIN and GUEST user registration

8.9.4.1 User Reg. operation selecting menu (MENU + 9 + 4)

To register, edit, and delete the User name or Secret Code, press **MENU** with [User Reg. menu list screen] or [Secret Code list display screen] displayed (enter 4-digit Secret Code).

[Registering new user]

Example) Registering a new user (Name: MARK, Code: 9871) on No.02.

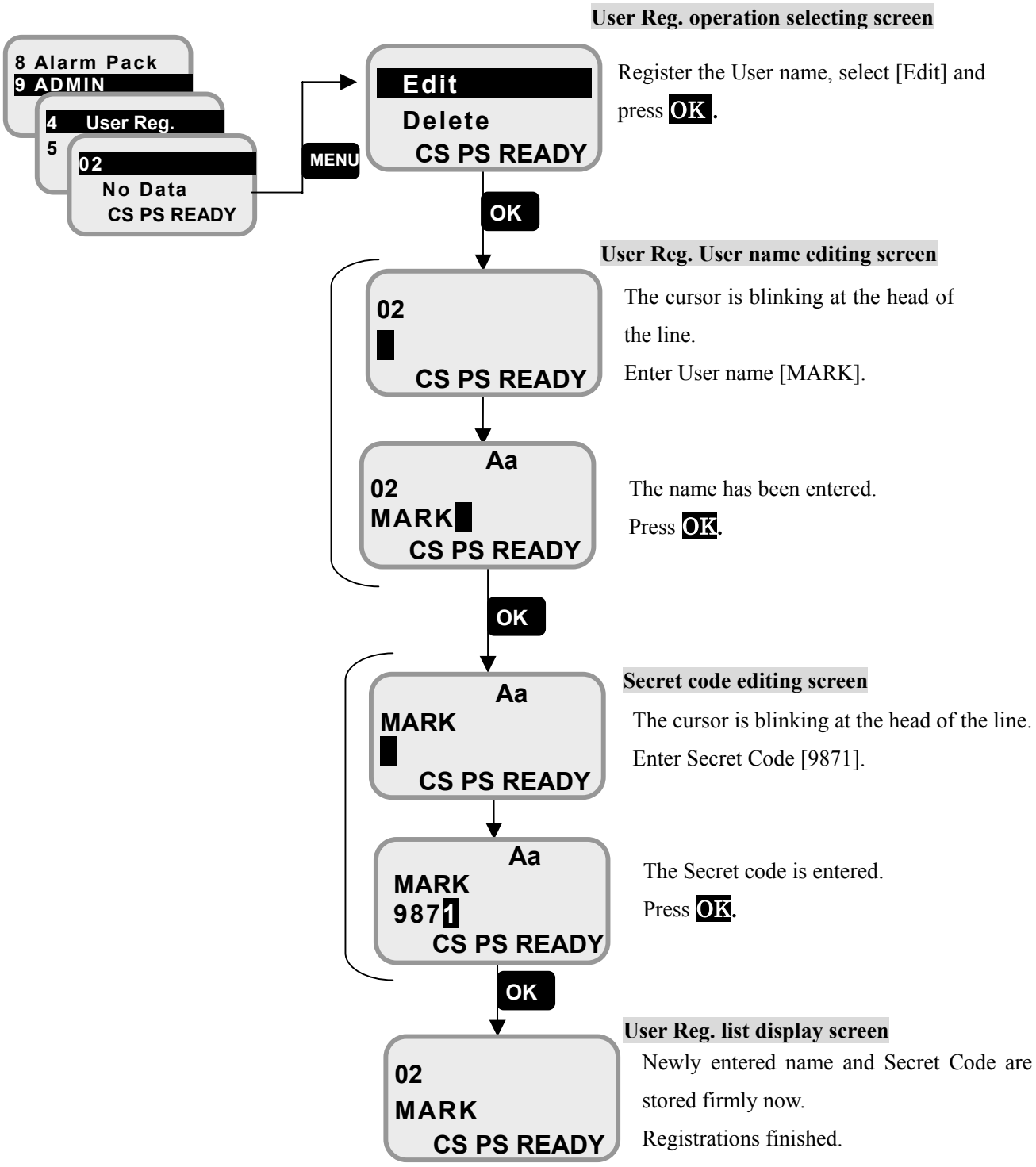


Fig. 8.9.4.1a Flow of User Reg. operation selecting menu

[Edit User name and/or Secret Code]

Even when either the User name only or the Secret Code only is to be changed, both of the edit screens are displayed.

On the edit screen where change is not necessary, just press OK button and go to the next screen.

Example)Changing the Secret Code of MARK (No.02), from 9871 to 8765.

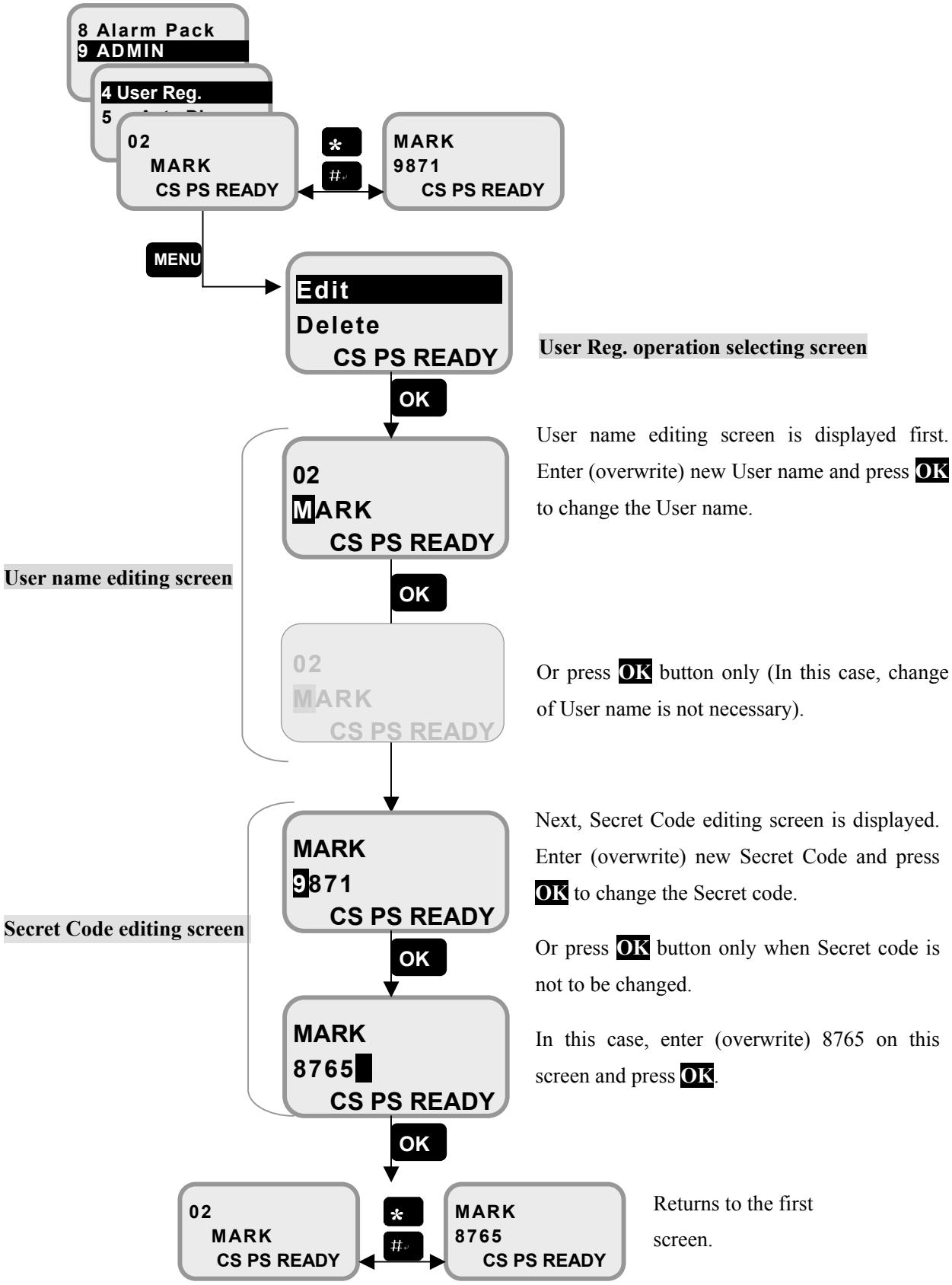
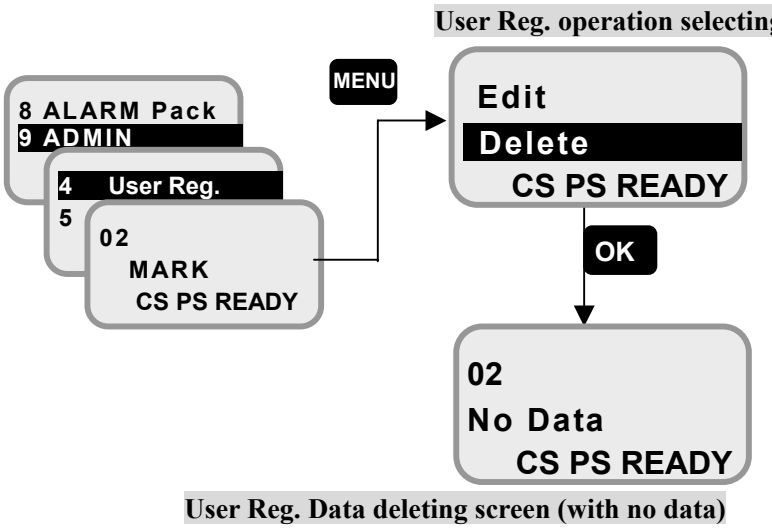


Fig. 8.9.4.1b Overwriting procedure of User name and Secret Code

[Deleting User name and Secret Code]

Example) Deleteing the data of No.02

Press **MENU** with the User Reg. list displayed.



Select [Delete] by cursor and press **OK**.

The data of No.02 has already been deleted. The screen returns to [User Reg. list display screen].
[No Data] is indicated on No.02.

Fig. 8.9.4.1c Deleting User name and Secret Code

[Note] Beware that once the data is deleted, it won't be recovered again.

8.9.5 Auto DCN.(Auto disconnection) menu (MENU + 9 + 5)

In this menu, the user can set **the limit of connection time (Max Time).**

Select [5. Auto DCN.] menu from [ADMIN] menu.

Setting Max Time (Max Connecting time) is useful to prevent the user from accidentally forgetting to disconnect the line. Max Time can be set on respective terminal equipment.

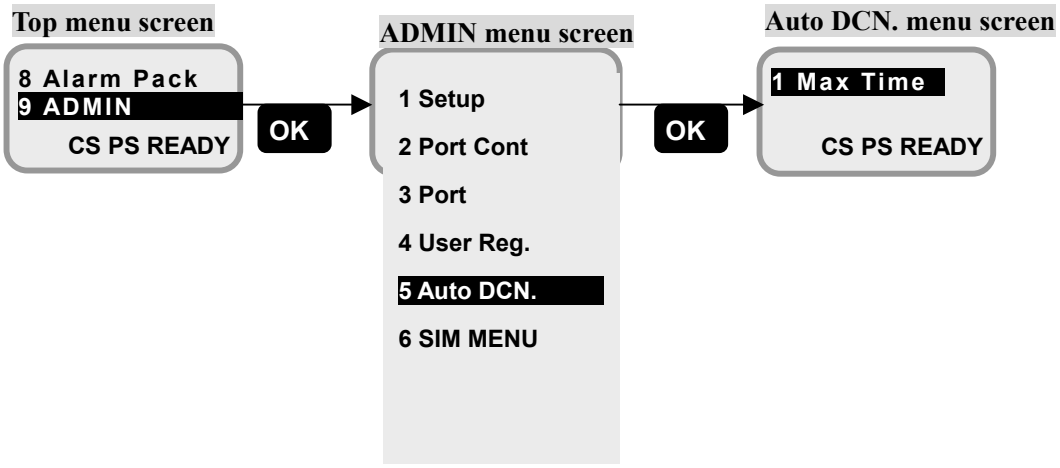
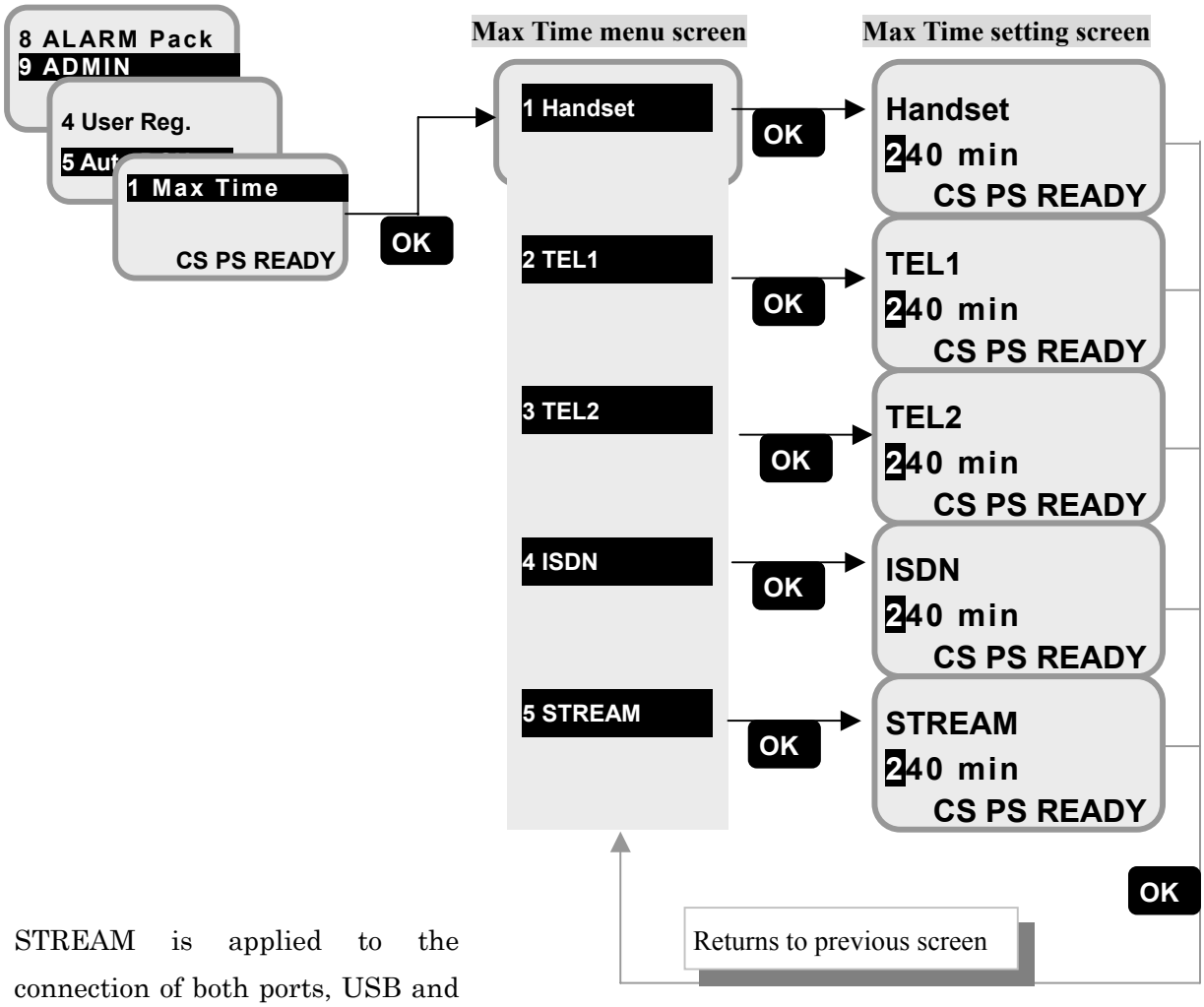


Fig. 8.9.5 Sequence of opening Auto DCN. menu screen

8.9.5.1 Max Time menu (MENU+ 9 +5 +1 +1 to 5)

Setting screen of Max Time **(connecting time limit)** is displayed when service type is set at [Max Time menu] screen. Time unit is minute. Enter 1 to 3-digit number and then press **OK**.
Then the screen returns to previous one.



STREAM is applied to the connection of both ports, USB and Ethernet.

Fig. 8.9.5.1 Max Time menu screen and Max Time setting screen

Set "0min." on above setting screen when unlimited connection is required.

8.9.6 SIM Menu (MENU + 9 + 6)

In this menu, the user can set up the items of SIM card.

The screen is displayed when [6 SIM Menu] is selected from ADMIN menu.

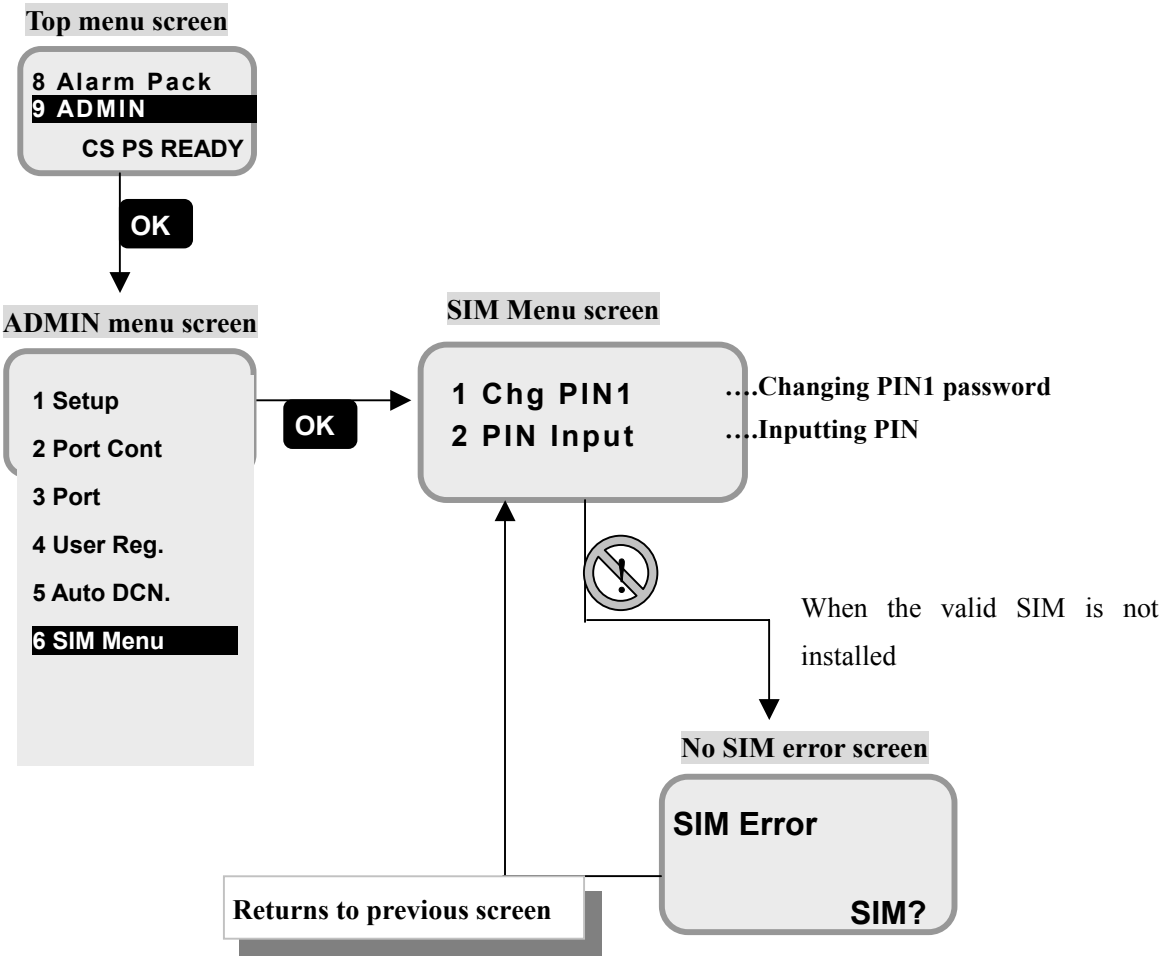


Fig. 8.9.6 SIM menu screen and No SIM error screen

8.9.6.1 Chg PIN1 menu MENU+ 9 +6+1)

In this menu, the user can change the PIN1 which is used for SIM card operation.

(To operate this menu, user should set PIN Input to [Enable] in [8.9.6.2 PIN Input setting] menu (p125), preliminarily.)

First, enter the original 4 to 8-digit PIN to [PIN1 authentication screen].

Entered figures are hidden by ******.

Then [New PIN1 input screen] will be displayed. Enter the new PIN1 and press **OK**.

Then the menu prompts reenter the new PIN1. Enter the new PIN1 again and press **OK**.

It returns to [SIM Menu screen] when the new PIN1 is accepted.

If the count of input failure reaches three, [SIM PUK1] screen is displayed to renew PIN.

Enter 8-digit SIM PUK1 you have gotten from card company when you purchased the SIM card and press **OK**.

When entered SIM PUK1 is incorrect, screen returns to [SIM PUK1 authentication] screen after Retype PIN1 is entered into [SIM new PIN1 retype screen]. SIM card is invalid when this count of input failure reaches 10.

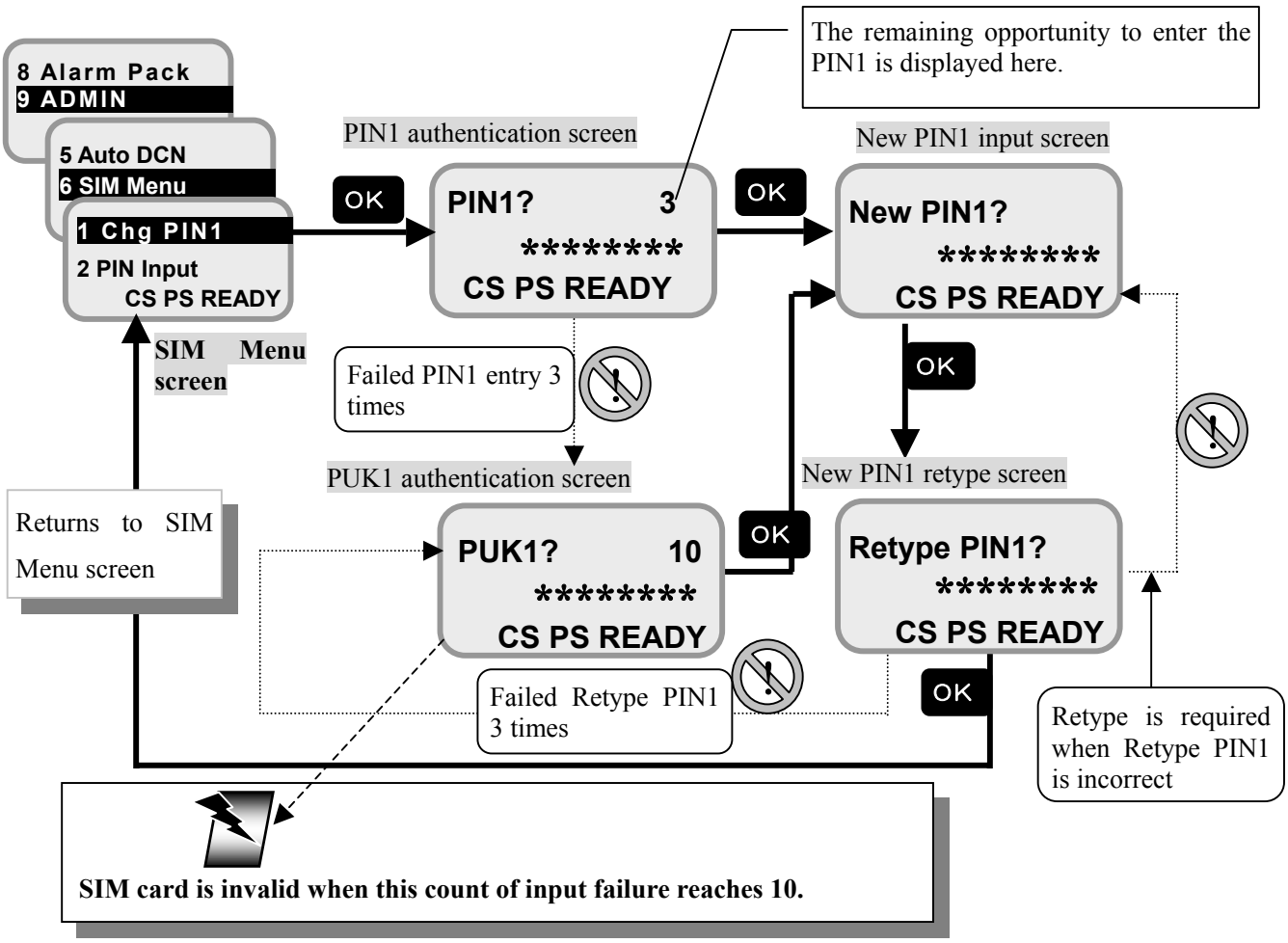


Fig. 8.9.6.1 Flow of Chg PIN1 menu

8.9.6.2 PIN Input setting (MENU+ 9+6+2)

In this menu, the user can set enable/disable of PIN entry.

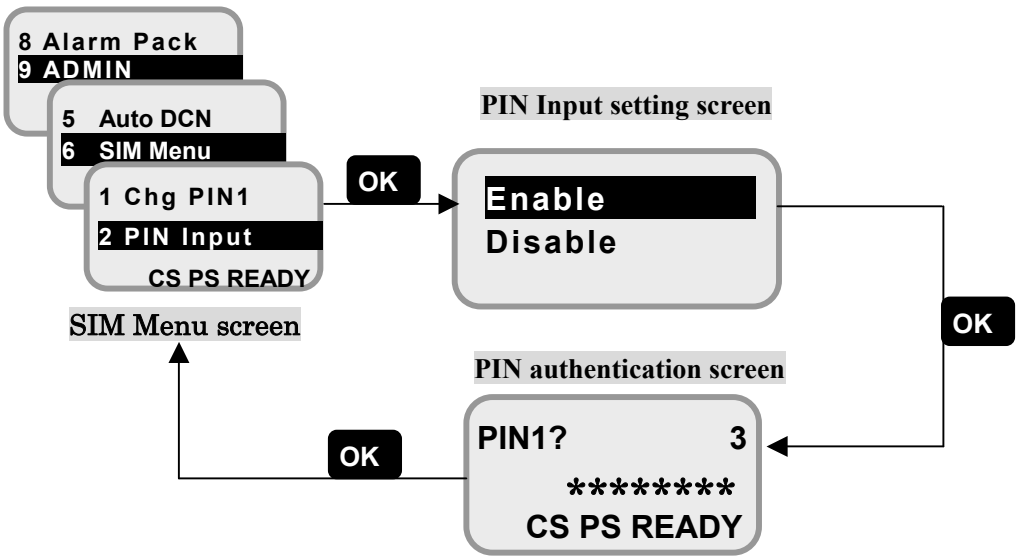


Fig. 8.9.6.2 PIN Input setting screen

PIN1 input is requested again to operate with SIM card, when the power switch is turned OFF and ON, if [Enable] is selected at [PIN1 input setting screen].

PIN input is not necessary to operate with SIM card, when power switch is turned OFF and ON, if [Disable] is selected at [PIN1 input setting screen].

* If incorrect PIN1 is entered 3 times, the screen turns to [PUK1 authentication screen](refer to previous page, [8.9.6.1. Chg PIN1 menu]). And if incorrect PUK1 is entered 10 times, the SIM card becames invalid.

8. 10 Other screen (Short cut is not available)

This screen is displayed when a fault is detected.

TX alarm screen

The screen pops up when TX alarm (the transmission stopped because of a trouble in transmitting system) is raised.

Press **OK** to reset the alarm, the screen returns to [Idle screen].

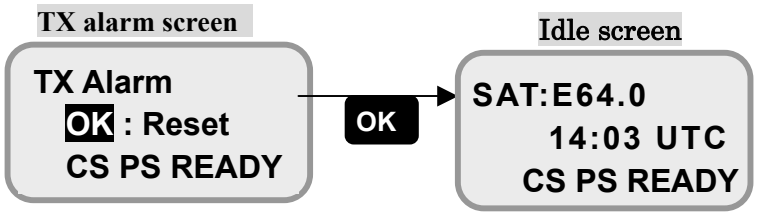


Fig.8.10 TX alarm screen

9. Maintenance

The life of the JUE-250 depends on how well the equipment is maintained. Check the following items from time to time to ensure the best performance of your JUE-250.

1) Keep the input voltage within the specified range (+19VDC to +31VDC).
2) When the equipment is in good order, at times record the transmitting power (EIRP) and the receiving level (REC). During the operation, compare the EIRP and REC level with the recorded normal values. This deed helps you to locate a fault before it develops into a serious one.

9.1 Daily maintenance

The following table shows daily maintenance items using general tools.

⚠ WARNING

Do not troubleshoot or repair the internal equipment of the JUE-250 by yourself.
Any electrical work by any person other than our trained maintenance staff may cause fire or abnormal operation of this equipment or electrical shock for you. This equipment meets the technical standard of the Ministry of Internal affairs and Communications.

Do not adjust the internal circuit without a calibrated measuring instrument or exchange the parts because the internal circuit has been adjusted finely to specifications. If the equipment works abnormally, please contact the dealer, JRC agent, or one of the JRC branches.

Table 9.1 Daily maintenance

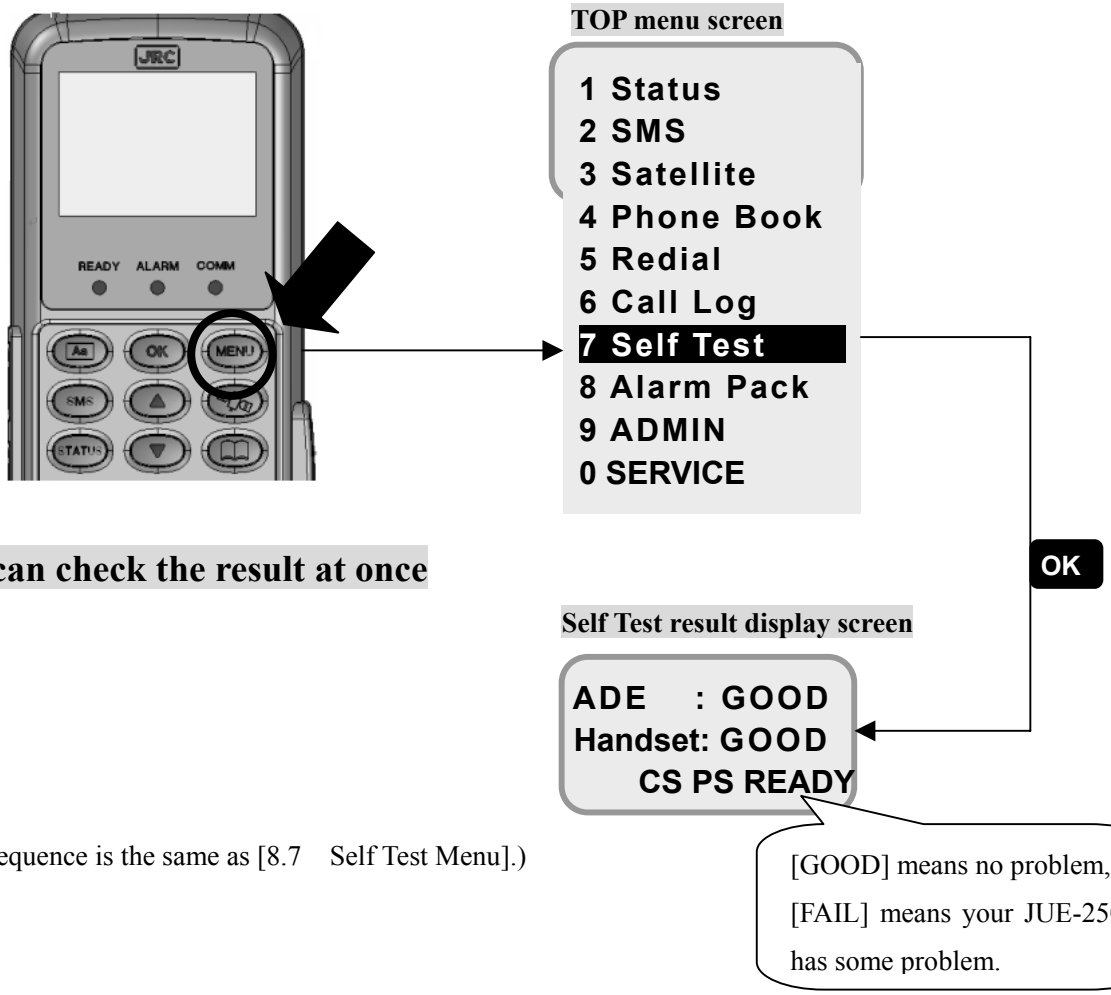
No.	Item	Maintenance
1	Cleaning	Clean the panel, switch, top cover, and the button cover with a soft cloth.
2	Fastening	Fasten the loose screw, nut, switch, and the connector.

9.2 Self Test

The JUE-250 has a self-diagnosis function (Self Test) to check the internal circuitry. The result of Self Test can be browsed on the Handset.

Procedure for displaying Self Test screen is as follows.

Start the Self Test



You can check the result at once

(This sequence is the same as [8.7 Self Test Menu].)

Turn off and on the main unit when [FAIL] is displayed, and retry the Self test. In case [FAIL] is displayed on the Result column again, stop using the JUE-250 and contact the dealer or JRC sales office.

10. After-sales service

When ordering repair

When a fault has been detected and it still persists, stop operation and contact the purchasing dealer, JRC agent or one of the JRC branches.

During the guarantee term;

JRC will repair the equipment or exchange any parts proven to be malfunctioning under normal use. The user is requested to have operated the equipment as instructed in the operation manual.

In the following cases, guarantee service is not accepted.

-Installation report has not been sent to JRC immediately after the JUE-250 was commissioned.

-The equipment has been subjected to accident, abuse, or misuse, shipping damage, alternations, incorrect and/or non-authorized service.

-The trouble, failure, malfunctioning and whatever is due to Act of God, fire, flood, explosion, accident, strikes, labor troubles or other industrial disputes, war (declared or undeclared), armed conflict, civil disturbance, embargoes, blockades, legal restrictions, riots, insurrections or any other cause beyond the control of JRC and the purchaser.

Service out of the guarantee term;

If the function is recoverable by a repair, JRC will arrange a changed service on customer's demand.

To request a guarantee or non-guarantee service, please inform us of;
+Ship's name, model name, date of manufacture, serial number, and MES ID.
+How trouble arose. Go into details as much as possible.

+Name of the office, organization etc of the vessel, the contact place and the telephoned /fax number.

Recommendation of professional maintenance

The performance of the set may degrade due to the aging of parts and so on, although the rate depends on how the equipment is used.

Maintenance by professional service engineer other than daily check by ship's crew is recommended.

For this professional maintenance, please contact the dealer, JRC agent or JRC branch office. This is a changed service.

Disposal of the JUE-250

Follow the rule of the pertinent local government when you abandon the JUE-250(ADE).

For details, contact the dealer, our service office (Refer to the list of offices at the end of the volume) or a concerned local government.

11. Specification

MAIN (ADE, BDE)

1.	MES Type	Class 9	
2.	Inmarsat type approval	B9JR01	
3.	Frequency	Transmit	1626.5 to 1660.5 MHz
		Receive	1525.0 to 1559.0 MHz
4.	Maximum E.I.R.P		+15.1dBW + 1/-2dB
5.	G/T		-15.5dBK
6.	Modulation		QPSK π/ 4-QPSK 16QAM
7.	Antenna	Type	0.30 ϕ flat
		Polarization	Right-hand circular (RHCP)
		Radome	AES
8.	Primary power	Voltage	+19VDC to +31VDC
		Current Maximum	Under 2 A, as the time of receipt Under 4.5A, as the time of transmitted, and optional equipment is connected.
9.	Dimension	ADE	Φ 350mm x h 350mm
		BDE	h 166mm x 64mm x d 221mm
	Weight	ADE	7.4kg
		BDE	2.2kg

10. Environmental Conditions

1) Temperature	ADE	-25˚C to +55˚C
	BDE	-15˚C to +55˚C
2) Relative Humidity	Up to +40˚C, 95%	
3) Vibration	IEC 60945 4th Edition compliant	
4) Ship's Motion	Motion: Amplitude Period	
	Roll +30˚ 8 s	
	Pitch +10˚ 6 s	
	Yaw +8˚ 50 s	
	Surge +0.2g	
	Sway +0.2g	
	Heave +0.5g	
	Turning Rate +6˚ /s 1 deg / s^2	
	Headway 30knots	
5) Solar Radiation (ADE)	Infrared Radiation 500 watts / m^2	
	Ultraviolet Radiation 54watts / m^2	
6) Icing (ADE)	Up to 25mm	
7) Precipitation	Up to 100mm / hour	
8) Wind	Up to 100knots in operation	

Appendix A Changing procedures of using GYRO tracking

A.1 Cable connection system diagram

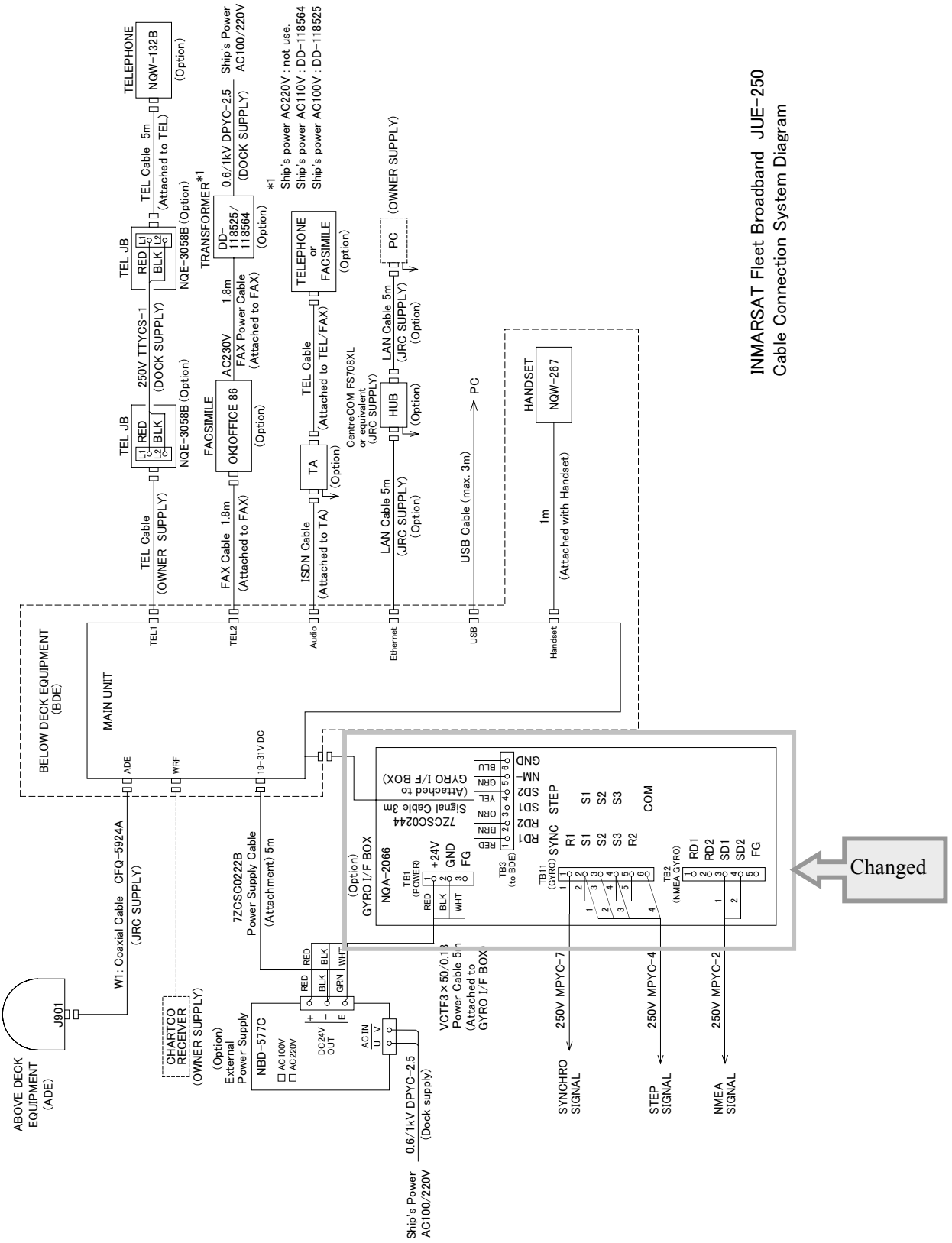


Fig. A.1 Cable connection system diagram

A.2. Procedure of setting GYRO tracking system (Corresponded to Chapter 8.9.1.4)

Procedure of changing tracking system from [Auto](signal tracking) to [GYRO(NSK)] or [GYRO(NMEA)] is described in this chapter.

(In JUR-250, the tracking system is easily changed from Handset, although setting of dip switch must be changed in JUE-33).

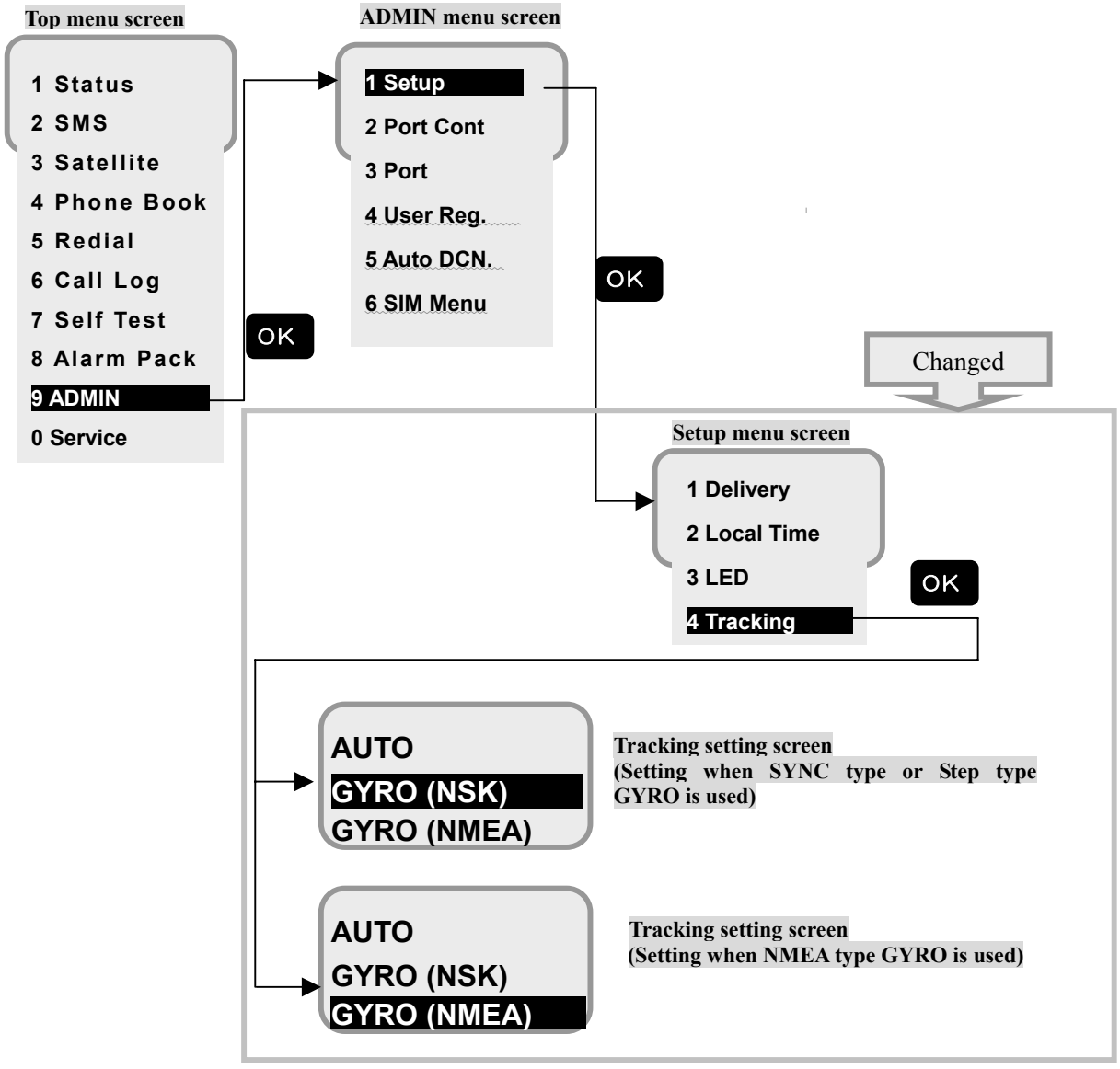


Fig.A.2 Procedure of setting GYRO tracking system

A3. Screen display of Handset (Corresponded to Chapter 4.1)

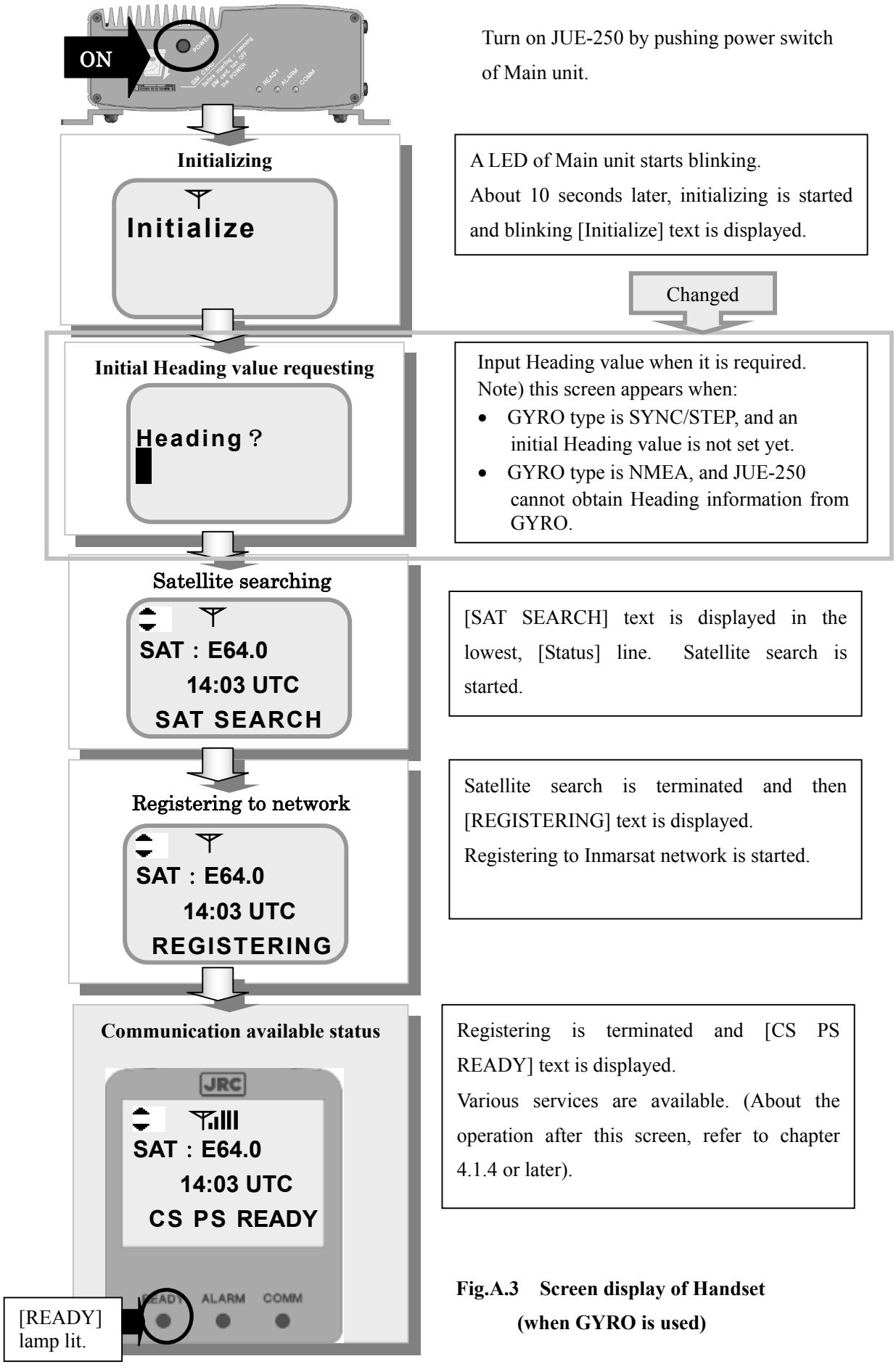

ON
Turn on JUE-250 by pushing power switch of Main unit.
Initializing
Initialize
A LED of Main unit starts blinking.
About 10 seconds later, initializing is started and blinking [Initialize] text is displayed.
Changed
Initial Heading value requesting
Heading ?
Input Heading value when it is required.
Note) this screen appears when:
• GYRO type is SYNC/STEP, and an initial Heading value is not set yet.
• GYRO type is NMEA, and JUE-250 cannot obtain Heading information from GYRO.
Satellite searching
SAT : E64.0
14:03 UTC
SAT SEARCH
[SAT SEARCH] text is displayed in the lowest, [Status] line. Satellite search is started.
Registering to network
SAT : E64.0
14:03 UTC
REGISTERING
Satellite search is terminated and then [REGISTERING] text is displayed.
Registering to Inmarsat network is started.
Communication available status
JRC
SAT : E64.0
14:03 UTC
CS PS READY
READY
ALARM
COMM
[READY] lamp lit.
Registering is terminated and [CS PS READY] text is displayed.
Various services are available. (About the operation after this screen, refer to chapter 4.1.4 or later).

Fig.A.3 Screen display of Handset (when GYRO is used)

A.4 Unit Info menu (Corresponded to Chapter 8.1.5)

In this menu, user can display the software version, maintenance No. and status of ADE/BDE.

By set to GYRO tracking, [2 Mainte No.] and [4 BDE] screens are changed.

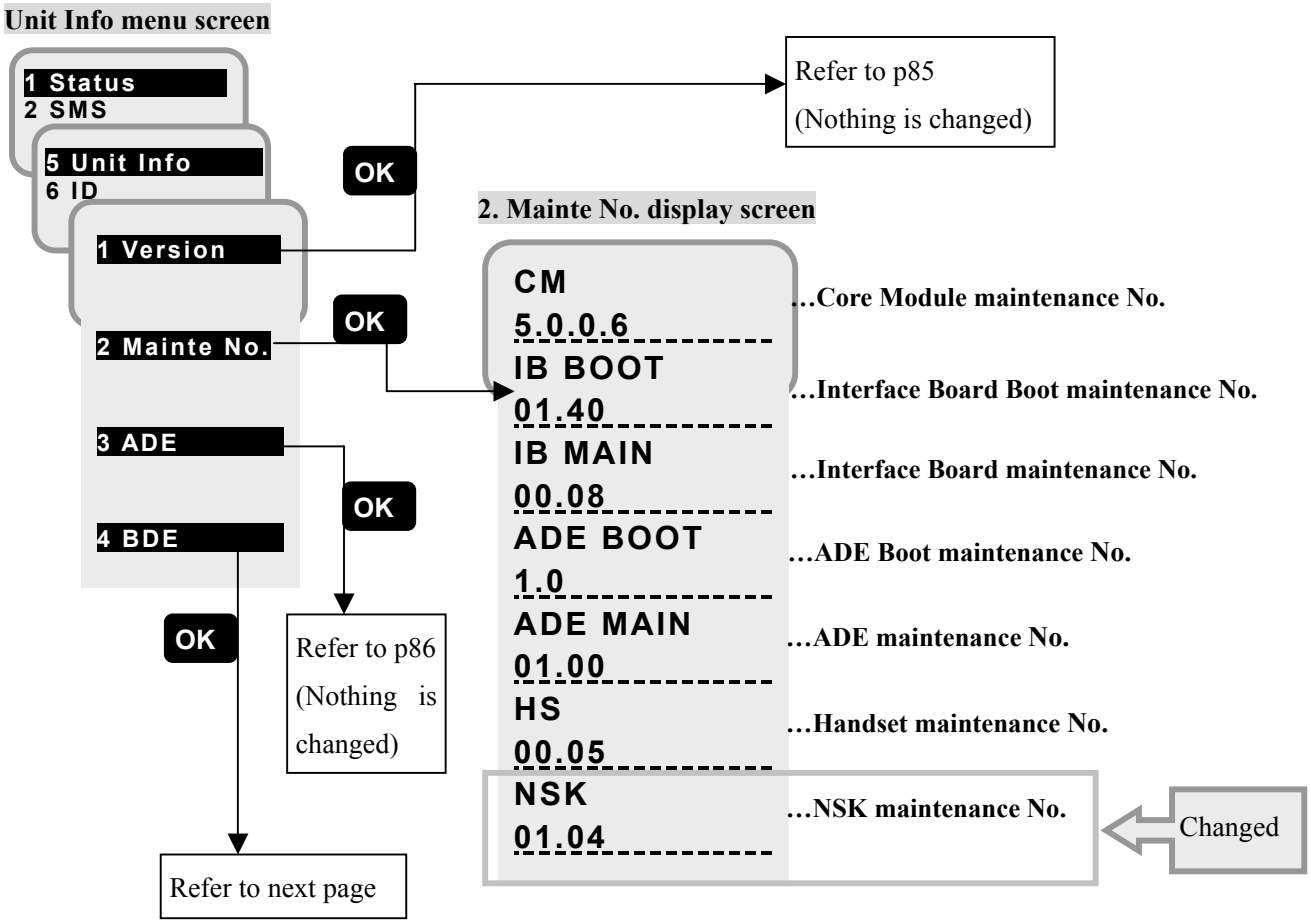


Fig.A.4a Mainte No. display screen (when GYRO is used)

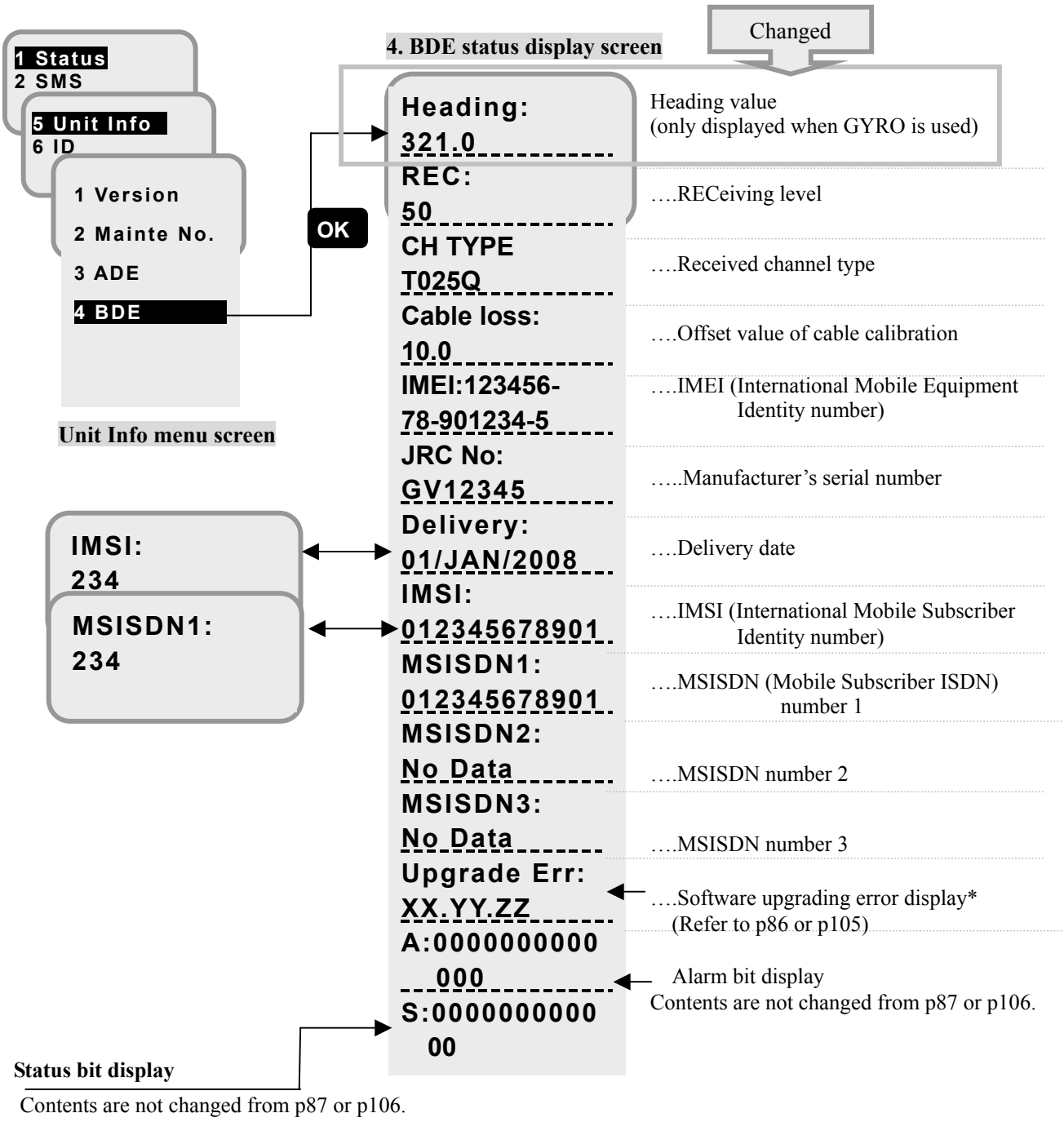


Fig.A.4b BDE status display screen (when GYRO is used)

*About [Unit selection menu for Alarm Pack (corresponded to Chapter 8.8.1), the screen is changed in the same way.

A.5 Satellite Menu(Corresponded to 8.1.3) (MENU+ 3)

Editing the Heading value is required after changed to GYRO tracking system.

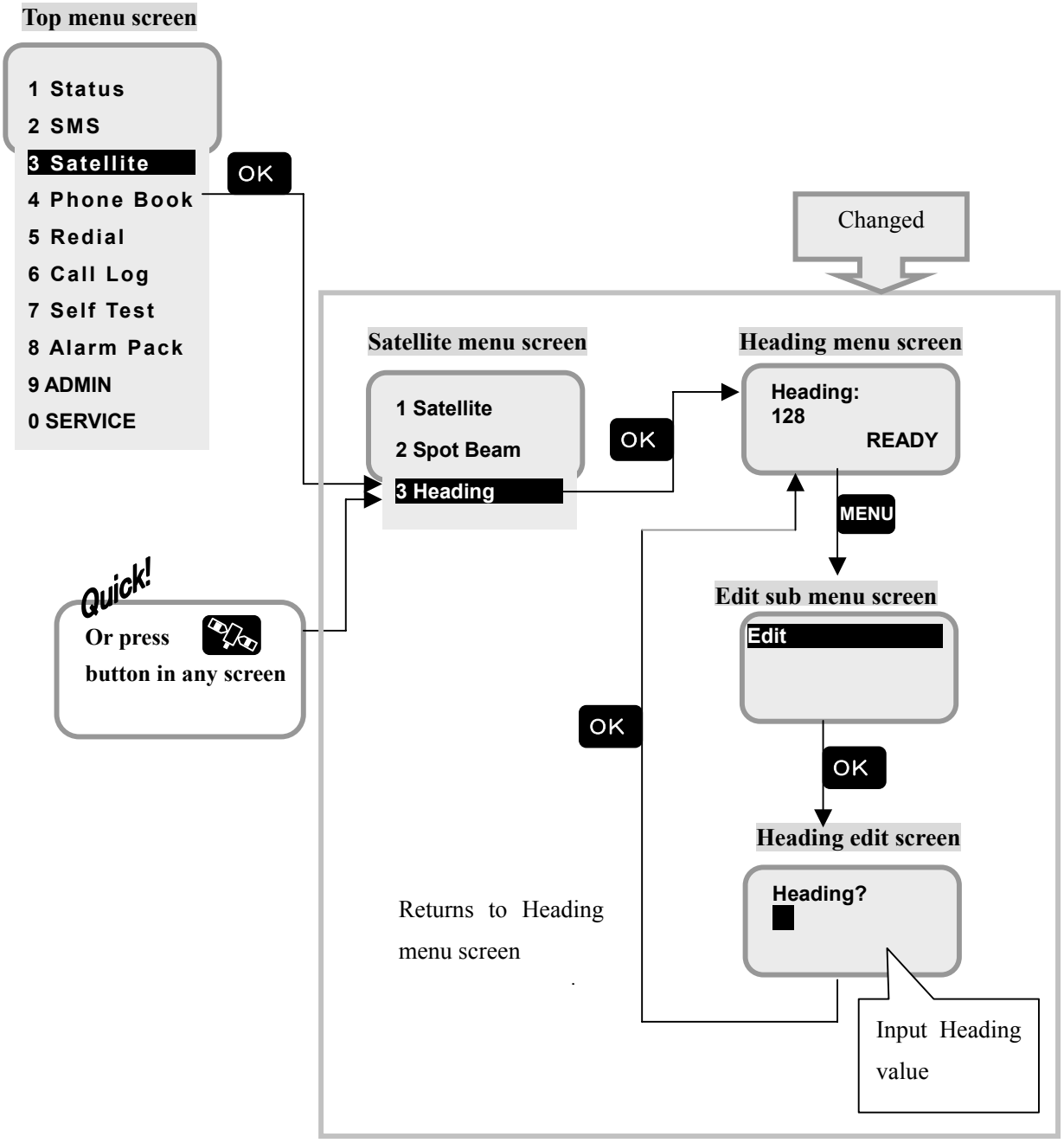


Fig.A.5 Heading menu screen of Satellite menu (when GYRO is used)

Appendix B Handset menu tree

B.1 Menu for all users (1)

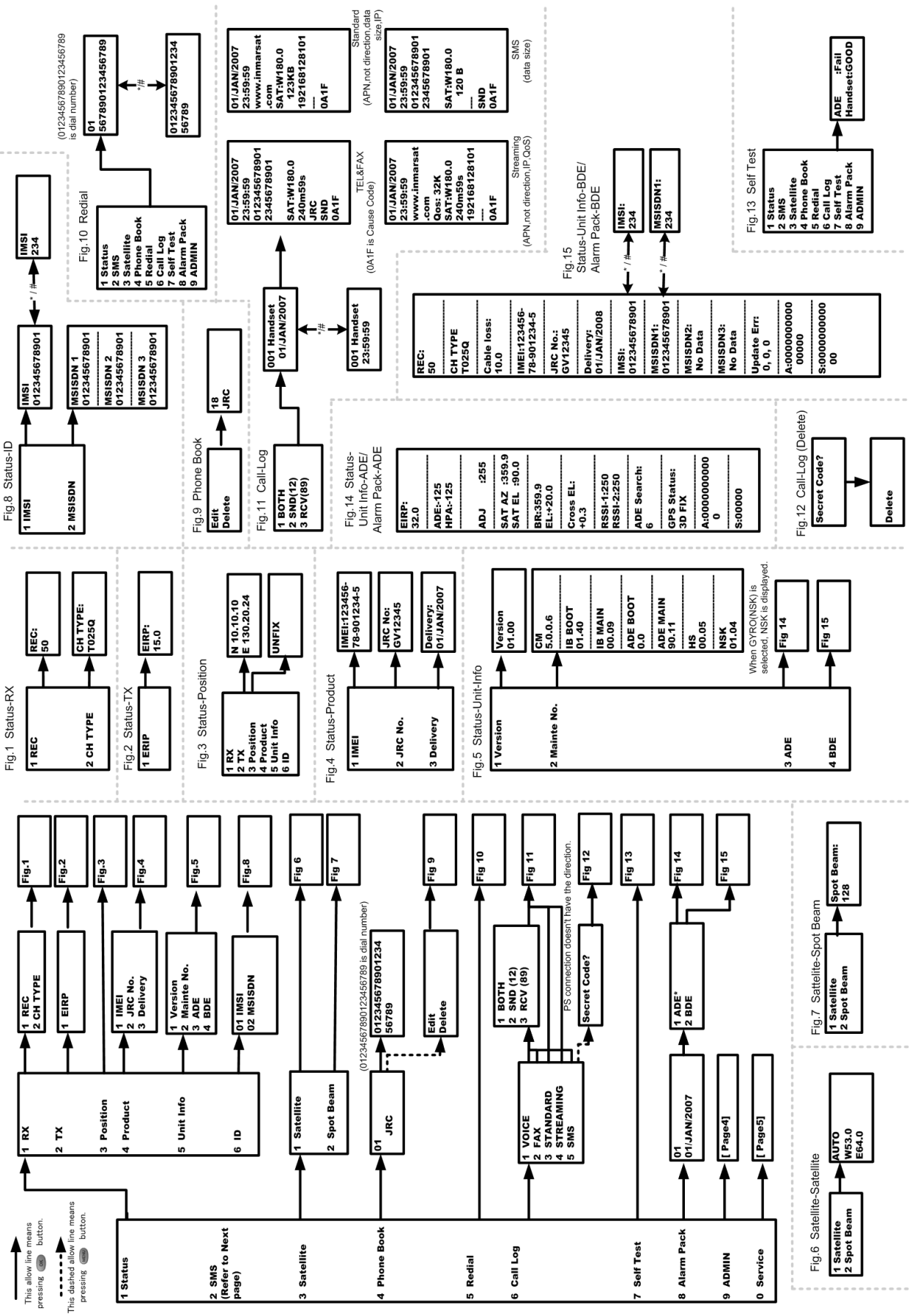


Fig.B.1 Menu for all users (1)

B.2 Menu for all users (2) SMS menu detail

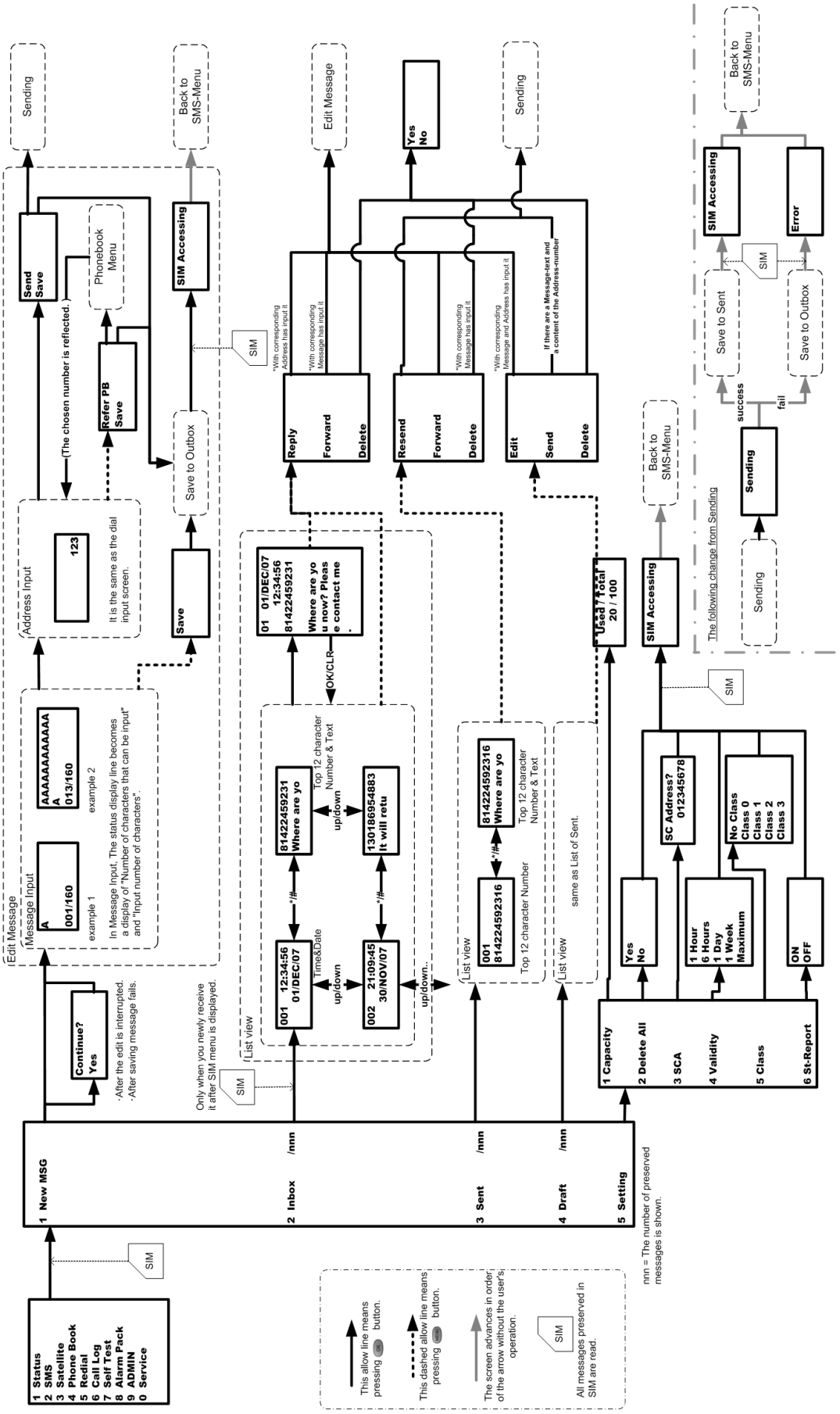


Fig.B.2 Menu for all users (2) SMS menu detail

B.3 Menu for ADMIN users

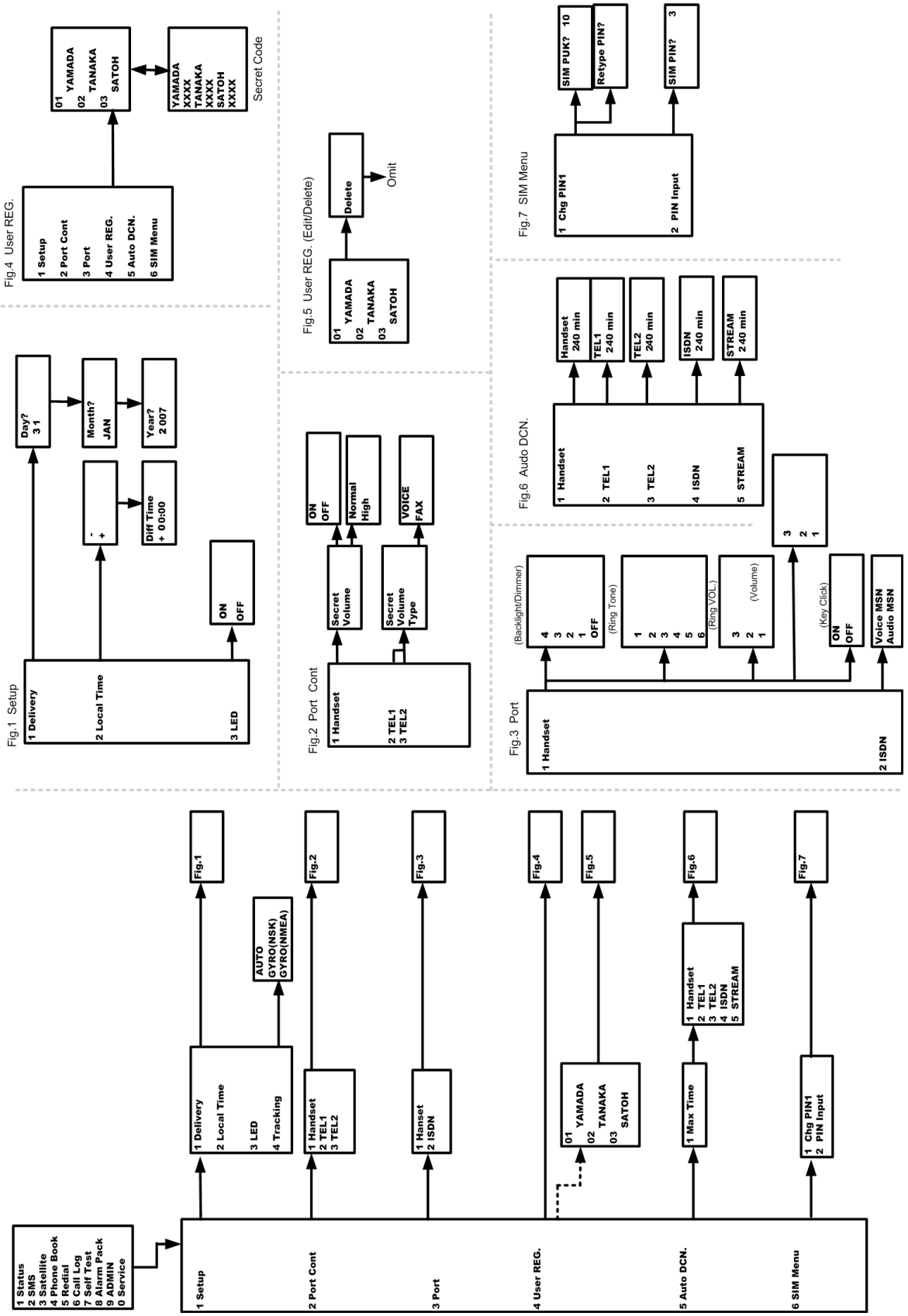


Fig.B.3 Menu for ADMIN users

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Appendix C　JUE-250 software updating procedure

Update JUE-250 software with following procedure.

(1)Confirm the connection

JUE-250 software updating is executed by a PC with dedicated application for PC.
Prepare a PC and connect it to your JUE-250.
* Windows XP OS is required.

(2)Install PC dedicated software（JUE-250 Upgrader）

Install [JUE-250 Upgrader] to your PC using installer, which stored in attached CD-ROM
* [JUE-250 Upgrader] installation to the PC is required only once, although software updating is executed repeatedly.

(3)Download the latest software for JUE-250

Confirm the website to check whether the latest software is uploaded or not, from the PC connected to Internet.　Download if the latest software is uploaded.

(4)Update JUE-250 software

Update the JUE-250 software by the downloaded software.

(5)Confirm the updated software version

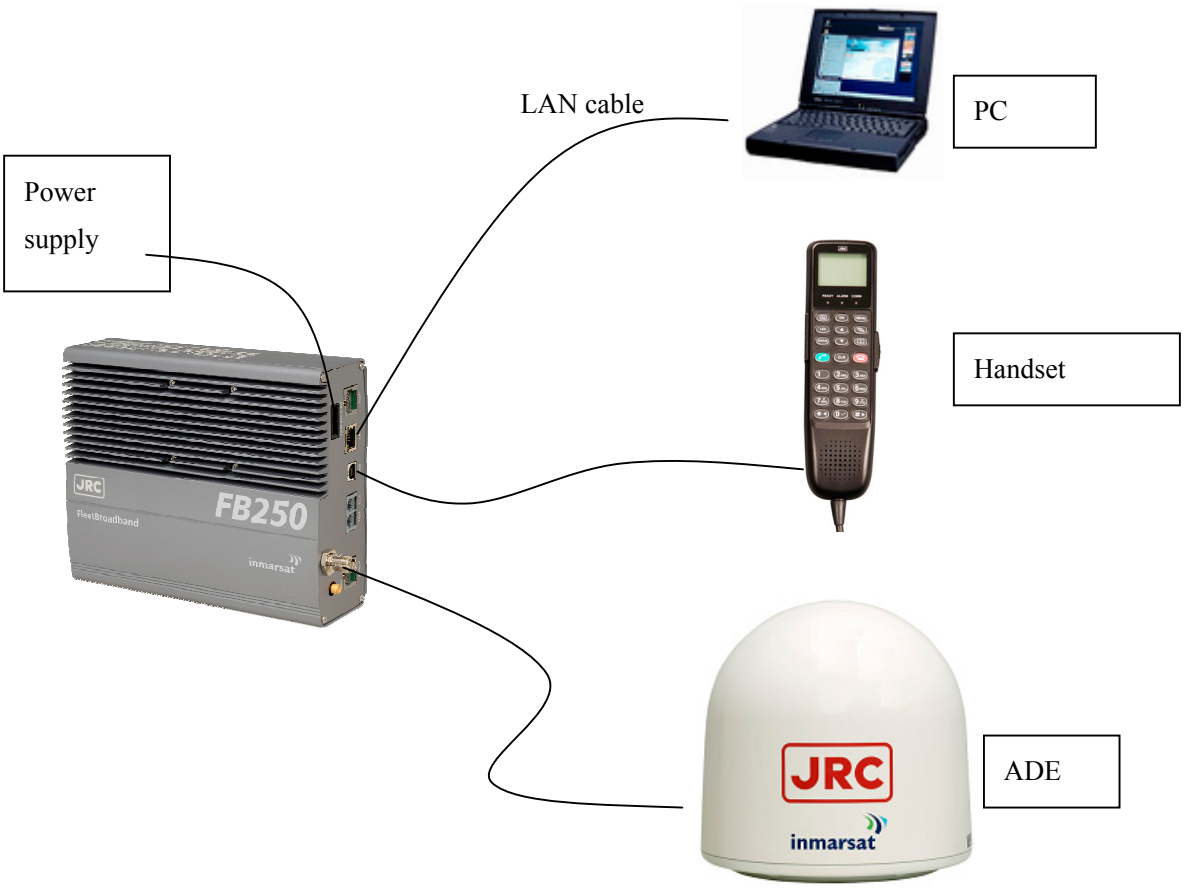
Confirm the software version after updating, to check that JUE-250 software is correctly updated or not.

1. Confirm the connection

PC dedicated software is used for JUE-250 software updating.

Prepare a PC and connect it to Ethernet port of JUE-250, with LAN cable.

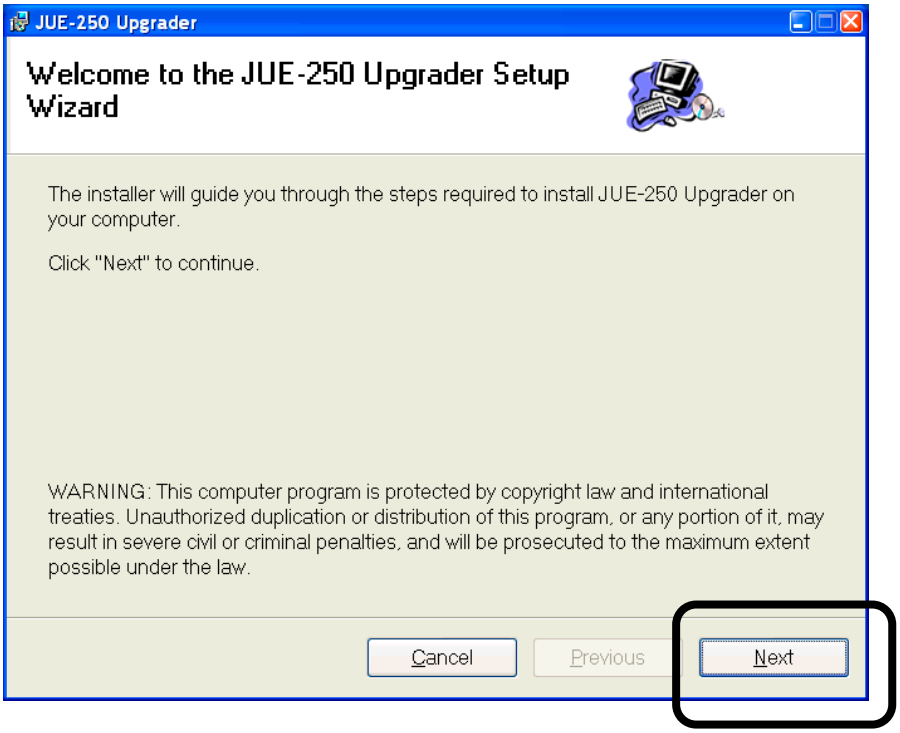
About the connecting procedure, refer to [6.2 Ethernet port PC connection] (p66) in this manual.



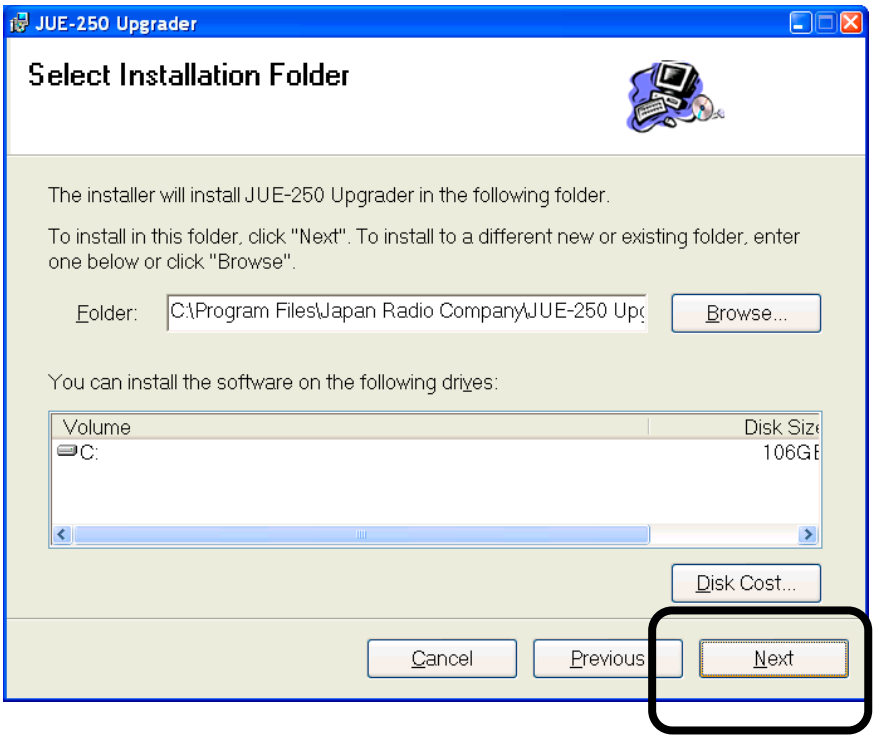
2. Install PC dedicated software (JUE-250 Upgrader)

1. Double click [JUE-250_Installer_0100.msi], which is stored in attached CD-ROM.

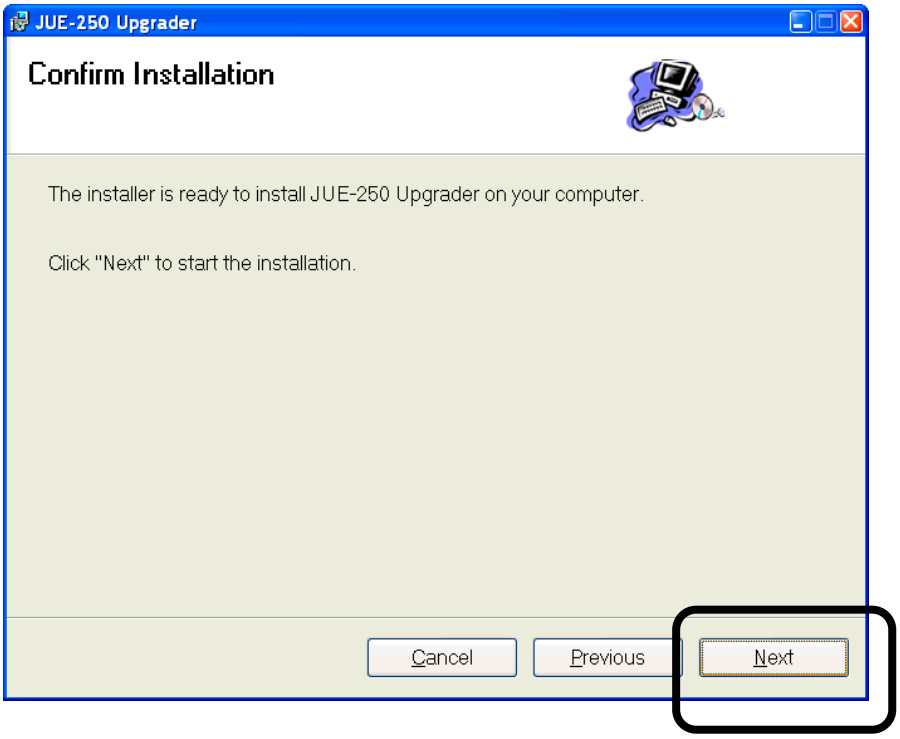
2. Click [Next] button.


JUE-250 Upgrader
Welcome to the JUE-250 Upgrader Setup Wizard
The installer will guide you through the steps required to install JUE-250 Upgrader on your computer.
Click "Next" to continue.
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.
Cancel
Previous
Next

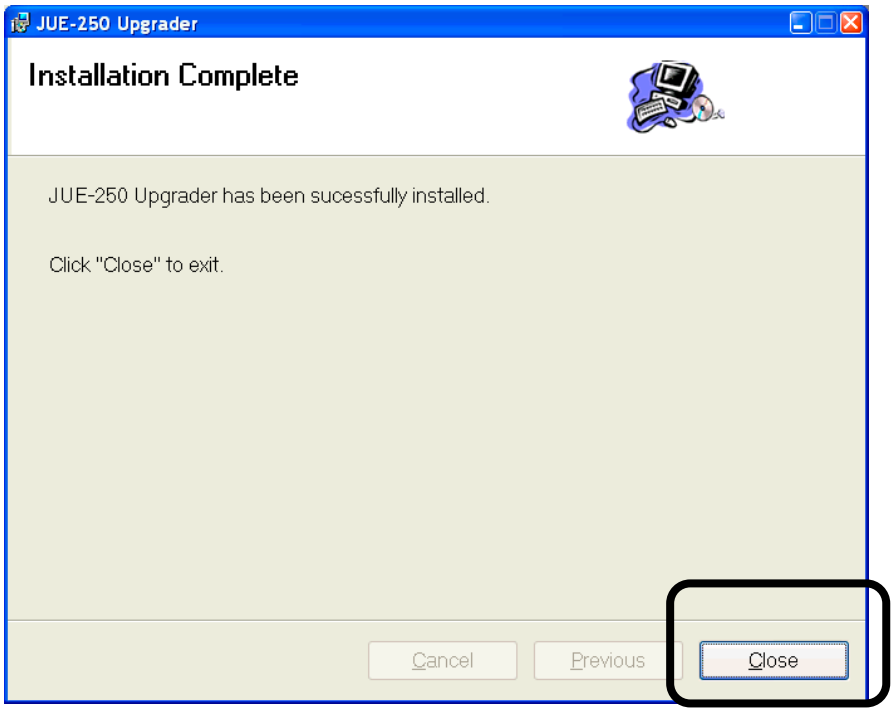
3. Specify the folder for installation. When the folder is not changed, click [Next] button. If you want to change the folder, click [Browse] button and select the folder.



4. Click [Next] button to start the installation.



5. Installation is completed. Click [Close] button.



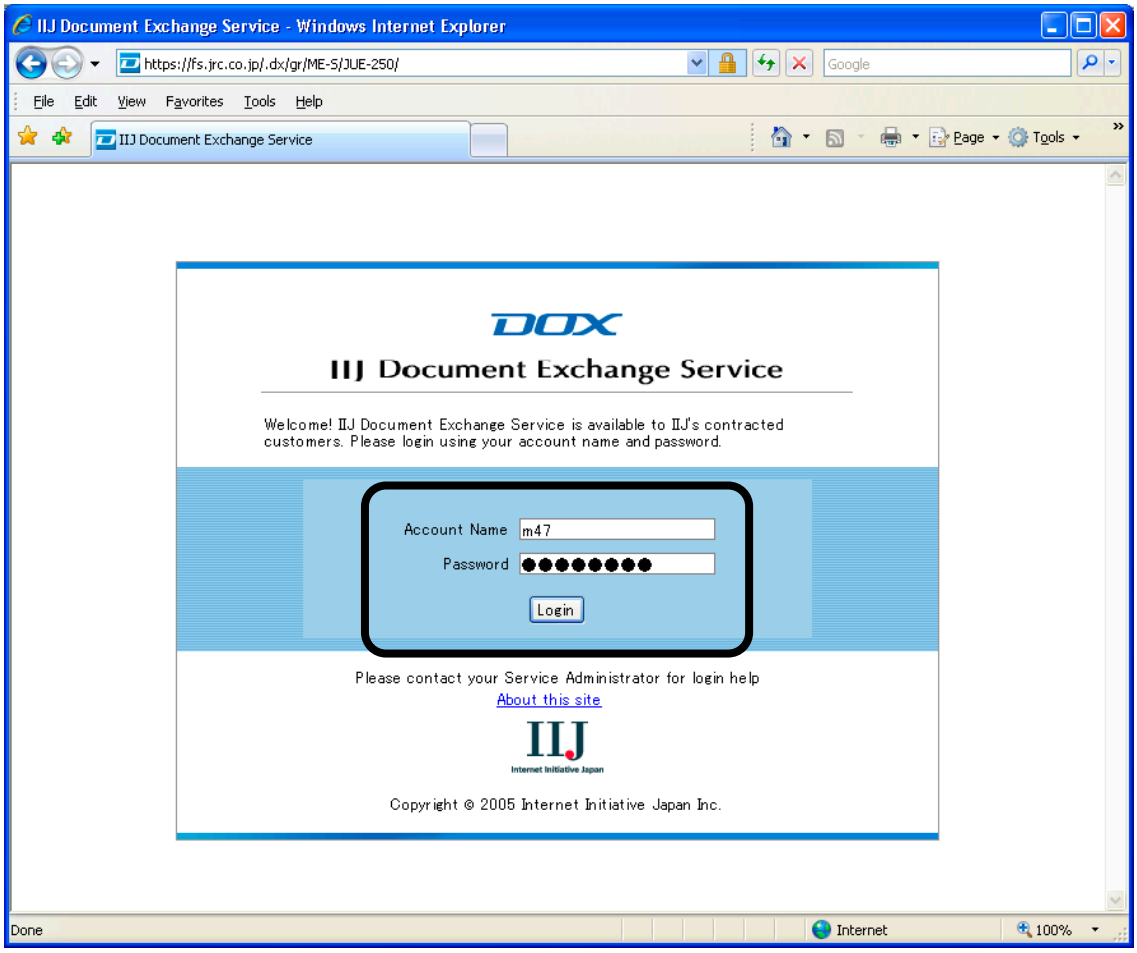
3. Download the latest software for JUE-250

* Execute following procedure with a PC connecting to Internet.

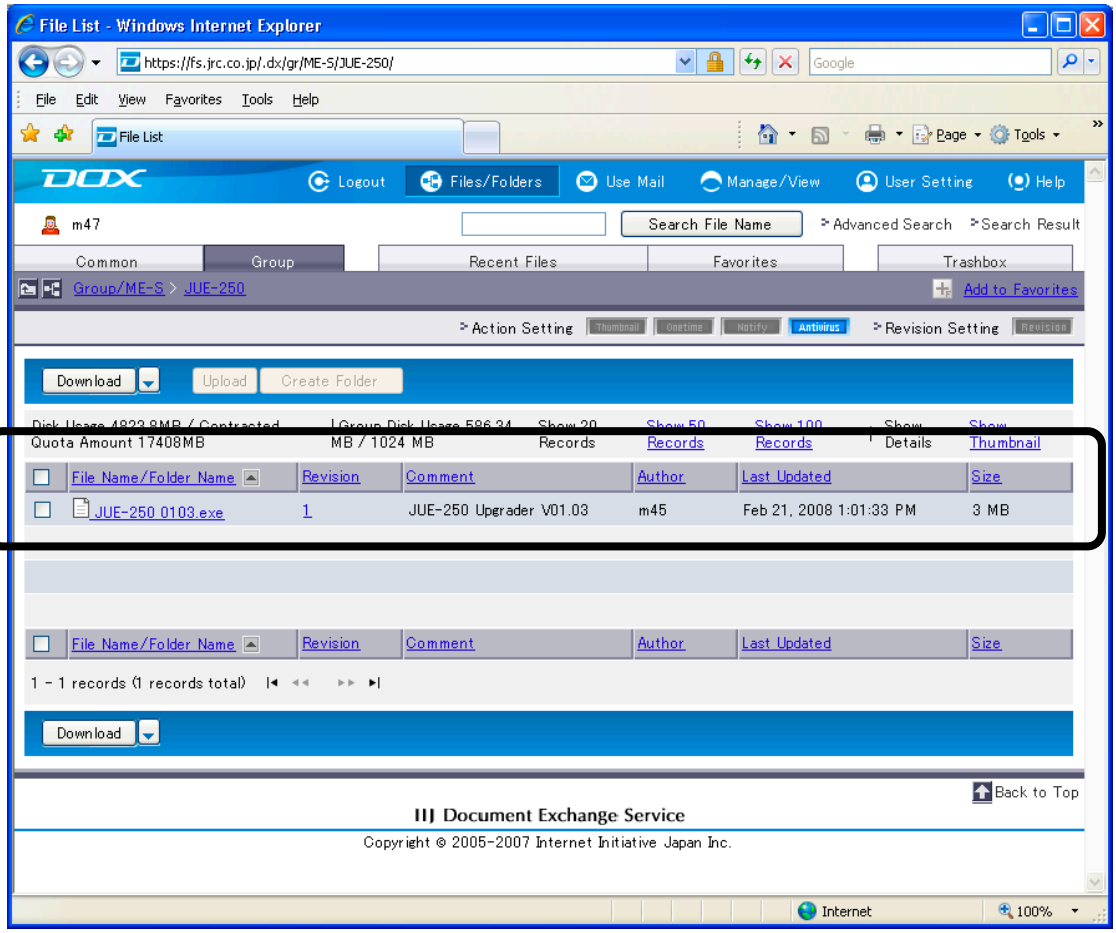
1. Open the following URL on WEB browser. Enter [Account Name] and [Password], then click [Login] button.

   Following shortcut icon is created after [JUE-250 Upgrader] is installed.

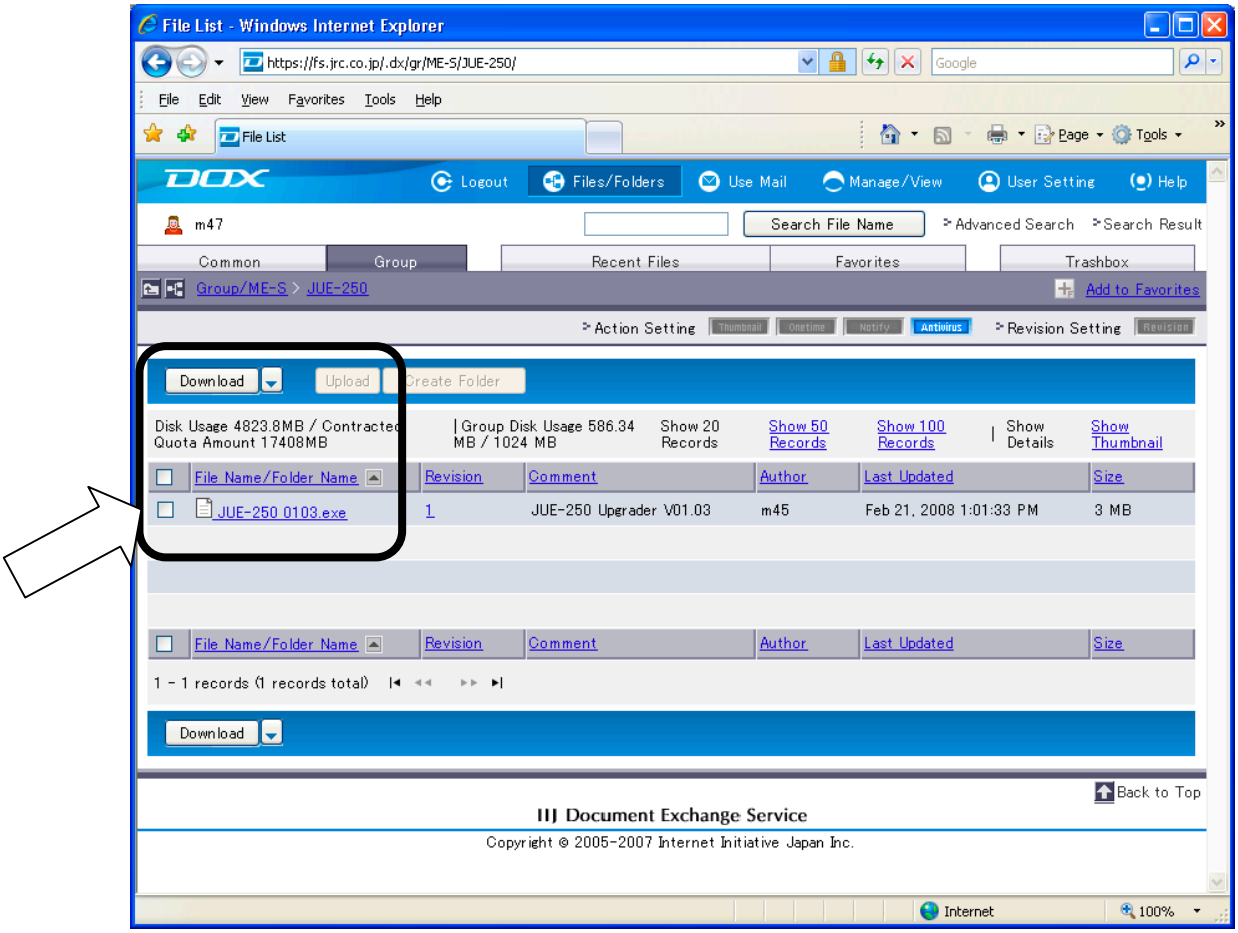
URL	https://fs.jrc.co.jp/.dx/gr/ME-S/JUE-250/
Account Name	m47
Password	jrcfb250



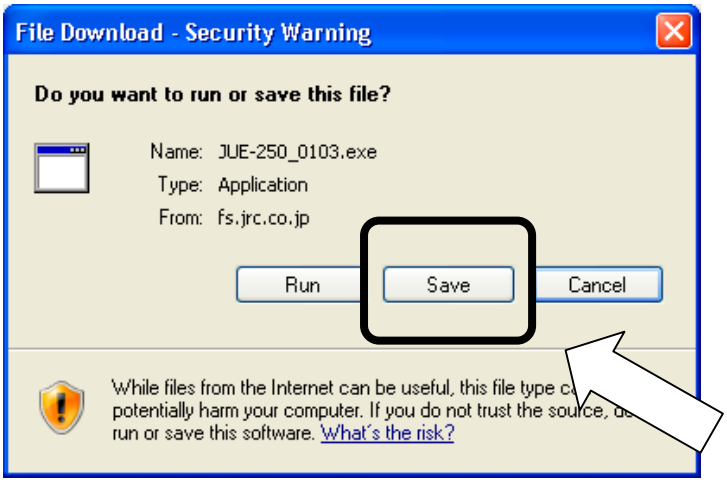
2.　File list is displayed.　[JUE-250_XXXX.exe] means the file for software.
[XXXX] means the software version, and larger number means newer software.



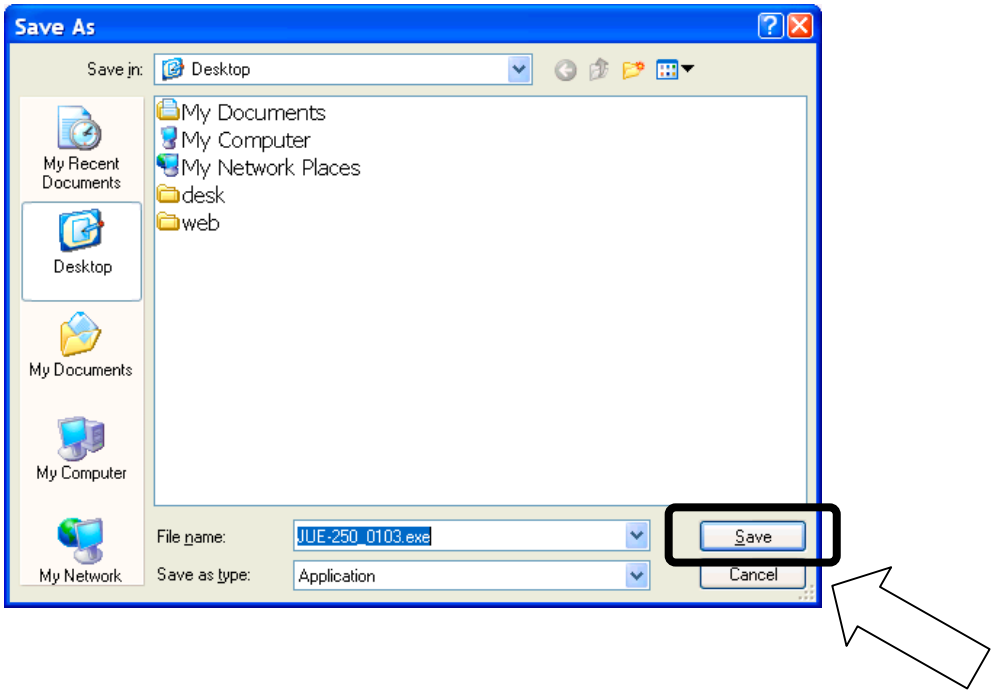
3. Download the file. Click the file name you want to download.



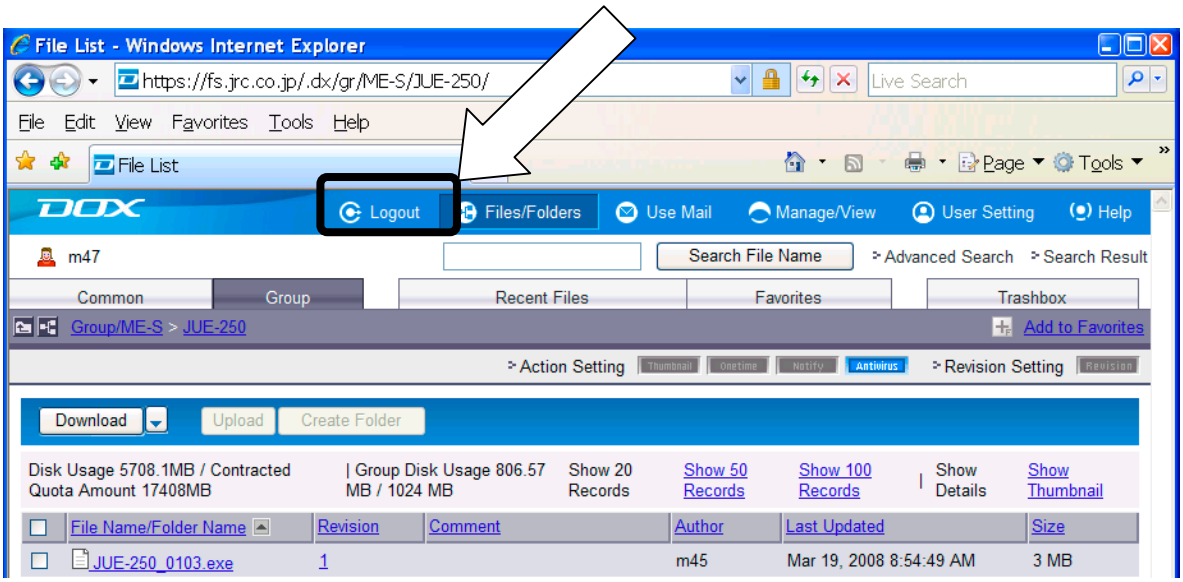
4. Click [Save] button.


File Download - Security Warning
Do you want to run or save this file?
Name: JUE-250_0103.exe
Type: Application
From: fs.jrc.co.jp
Run
Save
Cancel
While files from the Internet can be useful, this file type c
potentially harm your computer. If you do not trust the sou
run or save this software. What's the risk?

5. Specify the destination to save and click [Save] button. Downloading of the file is started.



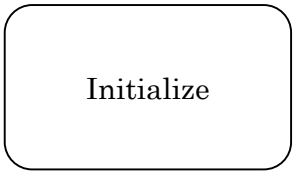
6. Click [Logout] button when downloading of the file is completed.
Close the WEB browser after logged out.



4. Update JUE-250 software

1. Activate your JUE-250 and confirm that initialization is completed.

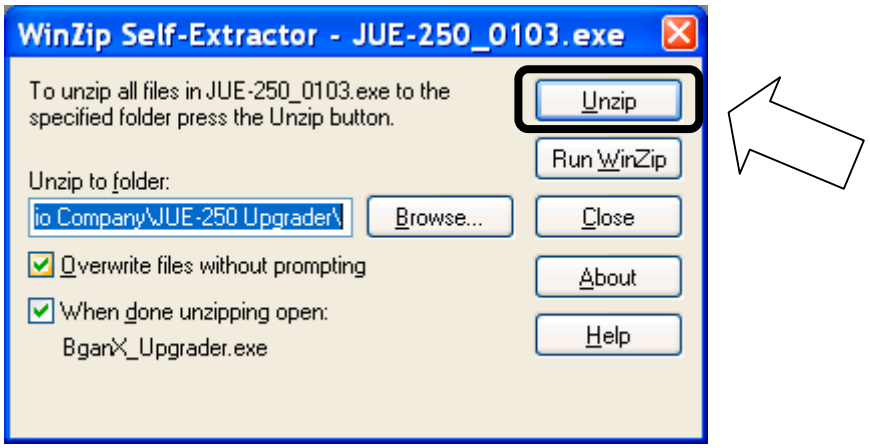
* [Initialize] is displayed during initialization.



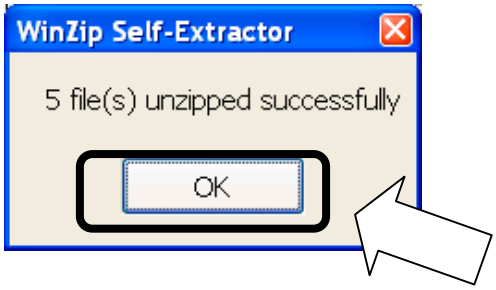
2. Execute the downloaded software file [JUE-250_XXXX.exe]. Double click the icon.

3. Following dialog box is displayed. Click [Unzip] button.

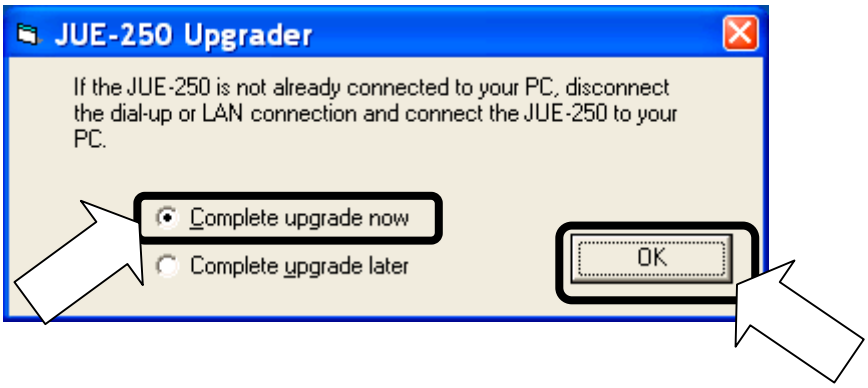
Note
・Unzip the [JUE-250 Installer] into the folder, which installed [JUE-250 Upgrader].

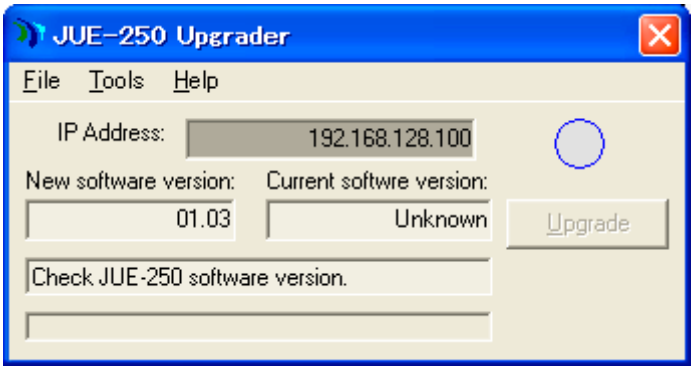


4. Following dialog box is displayed. Click [OK] button.



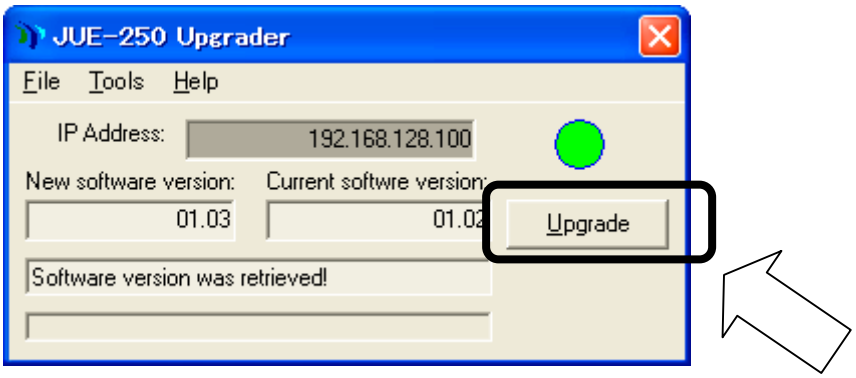
5. Select [Complete upgrade now] and click [OK] button. [JUE-250 Upgrader] is activated.


JUE-250 Upgrader
If the JUE-250 is not already connected to your PC, disconnect the dial-up or LAN connection and connect the JUE-250 to your PC.
Complete upgrade now
Complete upgrade later
OK

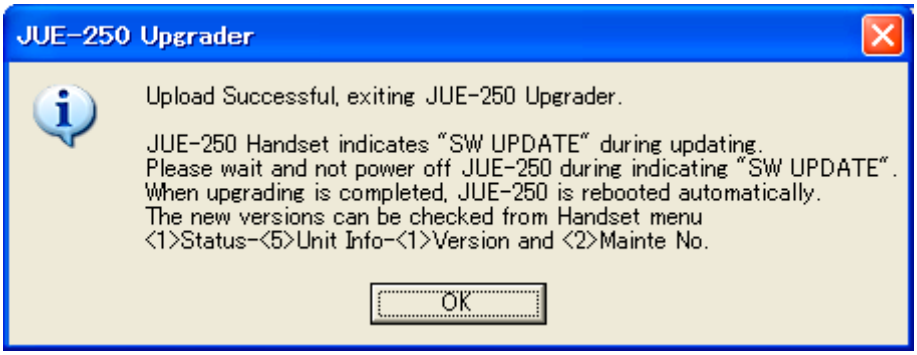


6. [Upgrade] button turns to active when installation is ready. Click [Upgrade] button. Forwarding of the file is started.

Note
・Do not turn OFF the JUE-250 or power supply during forwarding the file.



7. Following dialog box is displayed when file forwarding is completed. JUE-250 reboots automatically after several tens of seconds, and starts software updating.
Click [OK] button to close this dialog box.


JUE-250 Upgrader
Upload Successful, exiting JUE-250 Upgrader.
JUE-250 Handset indicates "SW UPDATE" during updating.
Please wait and not power off JUE-250 during indicating "SW UPDATE".
When upgrading is completed, JUE-250 is rebooted automatically.
The new versions can be checked from Handset menu
<1>Status-<5>Unit Info-<1>Version and <2>Mainte No.
OK

8. [SW UPDATE] is displayed on the Handset screen during software updating.

Note

- When updating is executed from the software version earlier than Ver0102, [SW UPGRADE] is displayed in the [status line] (lower right) .
- Do not turn OFF the power supply of JUE-250 and/or PC during the file forwarding.
- Software updating takes up to 10 minutes.

Handset screen display during software updating (later than Ver0102)

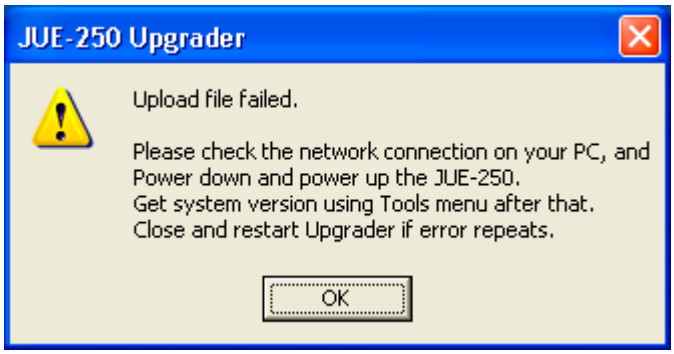
Handset screen display during software updating (earlier than Ver0102)

9. JUE-250 reboots when software updating is successfully completed.

When software update is failed

Update is failed when following phenomenon is generated.　Update again with referring to [Recovery procedure when software update is failed] (next page).

・[Upload file failed] dialog box is displayed on the PC.


JUE-250 Upgrader
Upload file failed.
Please check the network connection on your PC, and
Power down and power up the JUE-250.
Get system version using Tools menu after that.
Close and restart Upgrader if error repeats.
OK

・[BDE Update Error] or [ADE Update Error] is displayed on the Handset screen.

BDE Update Error X	ADE Update Error X

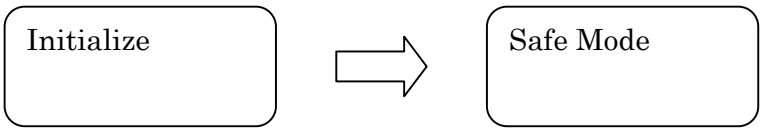
・Updating is not completed even past 10 minutes or more.

Recovery procedure when software update is failed

1. Turn OFF the power supply of JUE-250.
2. Quit [JUE-250 Upgrader], if it is still activating.
3. Turn ON the power supply of JUE-250 with pressing PTT button (right side of Handset)

4. Leave your finger from PTT button when Ready LED of main unit starts to blink.
5. Confirm the Handset screen transition, it displays [Initialize] and [Safe Mode].

Note
・When the software version is earlier than V0102, it displays [Initialize] screen only.



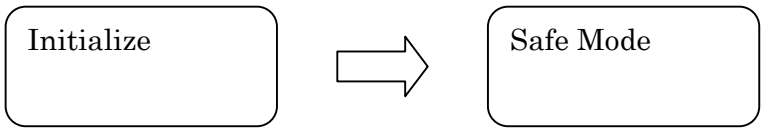
6. Execute from the 2nd procedure of [4. JUE-250 software update].

Software downgrading procedure

1. Turn OFF the power supply of JUE-250 main unit.
2. Quit [JUE-250 Upgrader], if it is activating.
3. Turn ON the power supply of JUE-250 with pressing PTT button (right side of Handset)

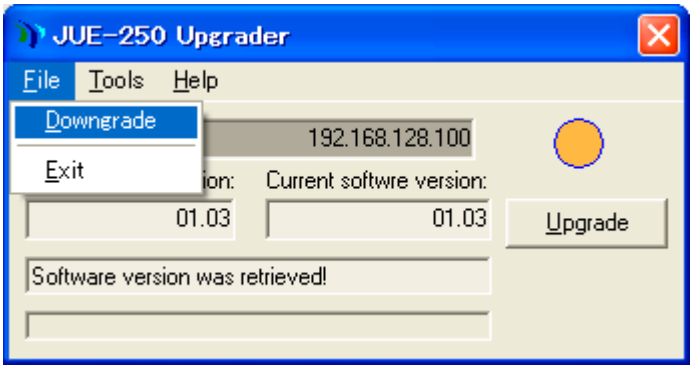
4. Leave your finger from PTT button when Ready LED of main unit starts to blink.
5. Confirm the Handset screen transition, it displays [Initialize] to [Safe Mode].

Note
・When the software version is earlier than V0102, it displays [Initialize] screen only.



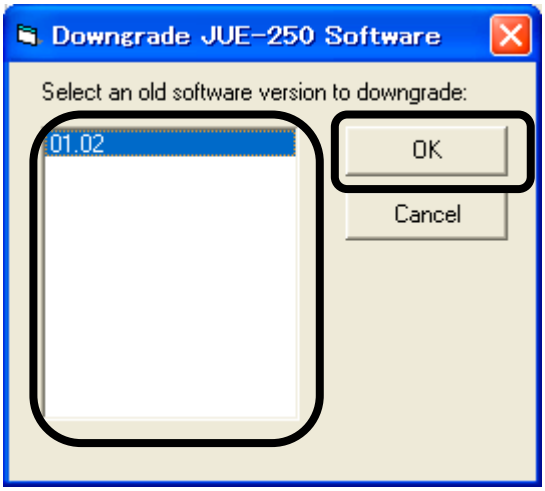
6. To activate [JUE-250 Upgrader], click shortcut icon of [JUE-250 Upgrader],or execute [Start]>[All Programs]>[Japan Radio Company]>[Upgrader]>[JUE-250 Upgrader].

7. When installation is ready, [Upgrade] button turns to active.
   Select [File]>[Downgrade].



8. Select the version you want to downgrade from list box, and click [OK] button.
   Forwarding of the file is started.

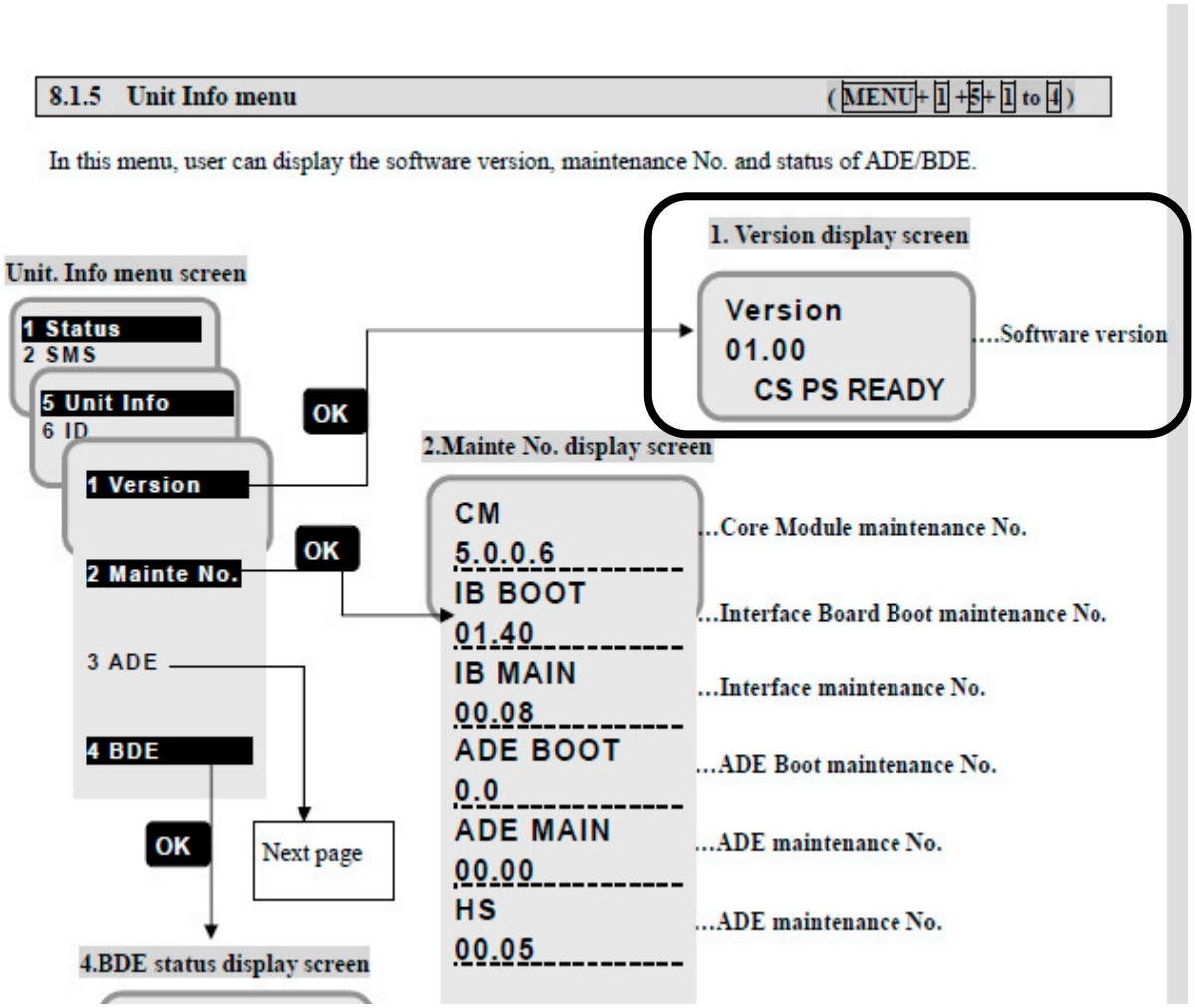
Note
・Do not turn OFF the power supply of JUE-250 and/or PC, during the file forwarding.



9. Execute the operation from procedure 7 of [4. JUE-250 software updating].

5. Confirm the updated software version

Check that the software version is correctly updated or not, from the following Handset menu.



Appendix D Default value list

Item	Default	Setting from Handset	
		Chapter	Title
Delivery date of the JUE-250	2007/01/01	8.9.1.1	1 Delivery
Time differences from UTC	+00:00	8.9.1.2	2 Local Time
Main unit LED ON/OFF	ON	8.9.1.3	3 LED
Selection of satellite tracking system	AUTO	8.9.1.4	4 Tracking
Use of Secret code for a call from Handset port	OFF	8.9.2	1 Handset→2 Volume
Use of Secret code for a call from TEL1 port	OFF		2 TEL1→2 Volume
Use of Secret code for a call from TEL2 port	OFF		3 TEL2→2 Volume
Volume level of Handset port	NORMAL		2 TEL1→3 Type
Volume level of TEL1 port	NORMAL		3 TEL2→3 Type
Volume level of TEL2 port	NORMAL		1 Handset→2 Volume
COMM TYPE of TEL1 port	VOICE		2 TEL1→2 Volume
COMM TYPE of TEL2 port	FAX		3 TEL2→2 Volume
Backlight dimmer of Handset	3	8.9.3.1	1 Handset→1 Back Light
Brightness of Handset LED lamps	3		1 Handset→2 Dimmer
Ringer pattern of Handset	1		1 Handset→3 Ring Type
Ringer volume of Handset	2		1 Handset→4 Ring VOL.
Voice volume of Handset	2		1 Handset→5 Volume
ON/OFF of key click sound of Handset	ON		1 Handset→6 Key Click
Voice-MSN of ISDN	1		2 ISDN→1 Voice-MSN
Audio-MSN of ISDN	2		2 ISDN→2 Audio-MSN
User name and secret code (the 1st one)	“ADMIN” 0001	8.9.4	01
User name and secret code (2nd or later)	No Data (Unregistered)		02～50
Maximum connecting time of Handset port	0 (unlimited)	8.9.5	1 Max Time→1 Handset
Maximum connecting time of TEL1 port	0 (unlimited)		1 Max Time→2 TEL1
Maximum connecting time of TEL2 port	0 (unlimited)		1 Max Time→3 TEL2
Maximum connecting time of ISDN port	0 (unlimited)		1 Max Time→4 ISDN
Maximum connecting time of STREAMING communication port（USB/Ethernet）	0 (unlimited)		1 Max Time→5 STREAM
Setting of SIM PIN	Depend on SIM	8.9.6	1 Chg PIN1
PIN input operation ON/OFF	Depend on SIM		2 PIN Input

Appendix E Trouble shooting and FAQ

FAQ Contents

1. Reception of radio wave from a satellite ・・・

1. Reception of radio wave from a satellite		
Problem (P)	Possible cause	Confirmation item
[Not Ready] is displayed and communication is impossible.	Satellite is not selected correctly.	Select the correct satellite at [Satellite] menu.
	Blocking.	Check if there is obstruction between the antenna and the satellite. Select another satellite when there is an obstacle, to turn the antenna to the clear view direction. Or wait until the ship changes her course.
	Out of satellite coverage area.	Check your ship is existing inner the satellite coverage area or not. If your ship is out of the coverage area, use JUE-250 after your ship is enters inside of the satellite coverage area.
	If the problem is not solved with above countermeasures, turn OFF and ON the power source of main unit to reboot JUE-250.	
Received signal strength is weak.	Blocking	Execute Satellite Search (select the satellite again). Also, check if there is obstruction between the antenna and the satellite. Select another satellite when there is an obstacle, to turn the antenna to the clear view direction. Or wait until the ship changes her course.

2. LaunchPad		
Problem (P)	Possible cause	Confirmation item
[Select Terminal] screen is displayed after starting LaunchPad and cannot connect with main unit of JUE-250.	Cable is not connected.	When the Ether port of the main unit and the PC are directly connected, check that the ports are connected by a “straight” Ethernet cable.
	Although the setting of the TCP/IP of the PC is set to “Automatic access”, the PC could not access the IP from the DHCP server.	Before activating the PC, check the cable between the main unit and the PC is connected correctly. If the PC has been activated without connected to the main unit, reboot the PC after hooking up the main unit.
	TCP/IP is not set.	Check that the network IP has been set in the PC matches the IP set in the main unit.
		Verify that the subnet mask, default gateway, and priority DNS server those are set in the PC match those set in the main unit.
	The local area connection of the PC is disabled. (Win2000 or later)	Check that the local area connection is set to ‘enable’ in the property specification of the local area connection.
	The local area connection of the PC is a bridge connection.	Delete the bridge by clicking the right mouse button on the icon of the local area connection.
[CIF_0010] error is generated on the LaunchPad and the connection between the LaunchPad and main unit is lost.	Ethernet connection is abnormal.	Execute [Search for terminal] by LaunchPad and connect with main unit again.

3. TEL		
Problem (P)	Possible cause	Confirmation item
Communication is impossible	Cable is not connected.	Check that the main unit or JB and the communication terminal are connected correctly. Check also that the power is supplied.
	Since a secret code type of originating call is set, input of a secret code is necessary.	Check the setting of SECRET CODE on the [Port Cont] menu. When a secret code type of originating call is set, originate a call referring to this Operation manual.
	Communication is occupied by another port.	Check that communication is not being carried out by another TEL port or ISDN port. Check also that the telephone set is properly on-hooked.
	The # button is not pressed following the destination number.	When originating a call using a TEL port, press the # button following the destination dial number.
	If the problem is not solved with above countermeasures, turn OFF and ON the power source of main unit to reboot JUE-250.	
Communication is impossible with specific distination.	System failure.	Ask your service provider.
Speed Dial calling and Redial calling is impossible.	Dialing sequence is incorrect.	Speed Dial calling : Speed dial number *# Redial calling : 00*#

4. FAX		
Problem (P)	Possible cause	Confirmation item
Communication is impossible.	Cable is not connected.	Check that the main unit or JB and the communication terminal are connected correctly. Check also that the power is supplied.
	Since a secret code type of originating call is set, input of a secret code is necessary.	Check the setting of SECRET CODE on the [Port Cont] menu. When a secret code type of originating call is set, originate a call referring to this Operation manual.
	Communication is occupied by another port.	Check that communication is not being carried out by another TEL port or ISDN port. Check also that the telephone set is properly on-hooked.
	The # button is not pressed following the destination number.	When originating a call using a TEL port, press the # button following the destination dial number.
	Service setting is incorrect.	Check that the service type is set to FAX in [Port Cont] menu.
	Out of 64Kbps 3.1KHz Audio service area.	64Kbps 3.1KHz Audio service can be utilized in the area which elevation angle is 20 degree or upper, only.
	If the problem is not solved with above countermeasures, turn OFF and ON the power source of main unit to reboot JUE-250.	
Communication is impossible with specific distination.	System failure.	Ask your service provider.

5. Packet Switch(Standard IP, Streaming IP) service		
Problem (P)	Possible cause	Confirmation item
Communication is impossible.	The line is busy.	Retry after several minutes.
	Out of the service area.	128Kbps Streaming can be utilized in the area which elevation angle is 10 degrees or upper, only. Also, if the Streaming service is utilized with Voice or FAX in the same time; elevation angle 10 degrees or upper: maximum 64kbps the other areas: maximum 32kbps
	If the problem is not solved with above countermeasures, turn OFF and ON the power source of main unit to reboot JUE-250.	

6. SMS		
Problem (P)	Possible cause	Confirmation item
Message cannot be delivered to distination.	Incorrect number is dialed.	Check the correct distination number.
Message cannot be delivered to specific distination.	System failure.	Ask your service provider.
Message cannot be received.	Incorrect number is dialed.	Check that the distination terminal (land side) dialed correct number or not.
	Reception overflow.	Reception is impossible when received messages exceeded the maximum number which can be saved in SIM card. Delete the received message properly.
Message cannot be received from specific distination.	System failure.	Ask your service provider.

7. Actions to be taken when abnormal status is indicated on Handset

Table E7. Displayed character strings and contents

Status	Display	Contents
Abnormal	ADE? *1)	ADE abnormal.
Abnormal	POSITION? *2)	GPS dose not receive the signal from satellite.
Abnormal	SIM ? *3)	SIM is not mounted
Abnormal	SEARCH NG*4)	Searching Satellite is failed.
Abnormal	GYRO? *5)	GYRO input is abnormal.
Abnormal	HEADING ? *6)	Input of HEADING value is required

＊1）Countermeasure for ADE?

Confirm the connection of the coaxial cable.

＊2）Countermeasure for POSITION?

Built-in GPS has not fixed position information. Check the existence of blocking.

If this phenomenon is repeatedly occurred, GPS failure can be considered.

＊3）Countermeasure for SIM?

Confirm that the SIM card is correctly mounted or the card is not broken.

＊4）Countermeasure for SEARCH NG

Execute satellite search again.

＊5）Countermeasure for GYRO?

Heading information has not input from the GYRO interface although JUE-250 is set as GYRO tracking.

Confirm the GYRO interface or the power supply of GYRO connected to the GYRO interface is turned on.

（This abnormal status is only appeared when optional GYRO interface is connected）

＊6）Countermeasure for HEADING?

This message is displayed when entry of initial HEADING value is required with the status of [GYRO signal input setting].

Input correct bearing of the ship into [Heading edit screen] with following [Fig.A.5 Heading menu screen of Satellite menu](p138). Wrong entry of ship's bearing causes incorrect operation and communication.

（This abnormal status is only appeared when optional GYRO interface is connected）

Appendix F Cause Code

Cause code indicates cause of disconnection of the communication.

F.1 Cause Code for CS communication (TEL, FAX)

Normal class

No. (HEX)	Reason	Description
0001	unassigned (unallocated) number	This cause indicates that the destination requested by the mobile station cannot be reached because, although the number is in a valid format, it is not currently assigned (allocated).
0003	no route to destination	This cause indicates that the called user cannot be reached because the network through which the call has been routed does not serve the destination desired.
0006	channel unacceptable	This cause indicates the channel most recently identified is not acceptable to the sending entity for use in this call.
0008	operator determined barring	This cause indicates that the MS(Mobile Station) has tried to access a service that the MS's network operator or service provider is not prepared to allow.
0010	normal call clearing	This cause indicates that the call is being cleared because one of the users involved in the call has requested that the call be cleared. Under normal situations, the source of this cause is not the network.
0011	user busy	This cause is used when the called user has indicated the inability to accept another call. It is noted that the user equipment is compatible with the call.
0012	no user responding	This cause is used when a user does not respond to a call establishment message with either an alerting or connect indication within the prescribed period of time allocated (defined by the expiry of either timer T303 or T310).
0013	user alerting, no answer	This cause is used when a user has provided an alerting indication but has not provided a connect indication within a prescribed period of time.
0015	call rejected	This cause indicates that the equipment sending this cause does not wish to accept this call, although it could have accepted the call because the equipment sending this cause is neither busy nor incompatible.
0016	number changed	This cause is returned to a calling mobile station when the called party number indicated by the calling mobile station is no longer assigned. The new called party number may optionally be included in the diagnostic field. If a network does not support this capability, cause No. 1 "unassigned (unallocated) number" shall be used.
0019	pre-emption	This cause is returned to the network when a mobile station clears an active call which is being pre-empted by another call with higher precedence.
001A	non-selected user clearing	Not supported. Treated as cause 001F.
001B	destination out of order	This cause indicates that the destination indicated by the mobile station cannot be reached because the interface to the destination is not functioning correctly. The term "not functioning correctly" indicates that a □signaling message was unable to be delivered to the remote user; e.g., a physical layer or data link layer failure at the remote user, user equipment off-line, etc.
001C	invalid number format (incomplete number)	This cause indicates that the called user cannot be reached because the called party number is not a valid format or is not complete.
001D	facility rejected	This cause is returned when a facility requested by user can not be provided by the network.
001E	response to STATUS ENQUIRY	This cause is included in STATUS messages if the message is sent in response to a STATUS ENQUIRY message.
001F	normal, unspecified	This cause is used to report a normal event only when no other cause in the normal class applies.

Resource unavailable class

No. (HEX)	Reason	Description
0022	no circuit/channel available	This cause indicates that there is no appropriate circuit/channel presently available to handle the call.
0026	network out of order	This cause indicates that the network is not functioning correctly and that the condition is likely to last a relatively long period of time; e.g., immediately re-attempting the call is not likely to be successful.
0029	temporary failure	This cause indicates that the network is not functioning correctly and that the condition is not likely to last a long period of time; e.g., the mobile station may wish to try another call attempt almost immediately.
002A	switching equipment congestion	This cause indicates that the switching equipment generating this cause is experiencing a period of high traffic.
002B	access information discarded	This cause indicates that the network could not deliver access information to the remote user as requested; i.e., a user-to-user information, low layer compatibility, high layer compatibility, or sub-address as indicated in the diagnostic. It is noted that the particular type of access information discarded is optionally included in the diagnostic.
002C	requested circuit/channel not available	This cause is returned when the circuit or channel indicated by the requesting entity cannot be provided by the other side of the interface.
002F	resource unavailable, unspecified	This cause is used to report a resource unavailable event only when no other cause in the resource unavailable class applies.

Service or option not implemented class

No. (HEX)	Reason	Description
0031	quality of service unavailable	This cause indicates to the mobile station that the requested quality of service, as defined in ITU-T Recommendation X.213, cannot be provided.
0032	Requested facility not subscribed	This cause indicates that the requested supplementary service could not be provided by the network because the user has no completed the necessary administrative arrangements with its supporting networks.
0037	Incoming calls barred within the CUG (Closed User Group)	This cause indicates that although the called party is a member of the CUG for the incoming CUG call, incoming calls are not allowed within this CUG.
0039	bearer capability not authorized	This cause indicates that the mobile station has requested a bearer capability which is implemented by the equipment which generated this cause but the mobile station is not authorized to use.
003A	bearer capability not presently available	This cause indicates that the mobile station has requested a bearer capability which is implemented by the equipment which generated this cause but which is not available at this time.
003F	service or option not available, unspecified	This cause is used to report a service or option not available event only when no other cause in the service or option not available class applies.
0044	ACM(Accumulated Call Meter) equal to or greater than ACMmax	This cause is used by the mobile to indicate that call clearing is due to ACM being greater than or equal to ACMmax.

Invalid message (e.g., parameter out of range) class

No. (HEX)	Reason	Description
0051	invalid transaction identifier value	This cause indicates that the equipment sending this cause has received a message with a transaction identifier which is not currently in use on the MS-network interface.
0057	user not member of CUG(Closed User Group)	This cause indicates that the called user for the incoming CUG call is not a member of the specified CUG.
0058	incompatible destination	This cause indicates that the equipment sending this cause has received a request to establish a call which has low layer compatibility, high layer compatibility, or other compatibility attributes (e.g., data rate) which cannot be accommodated.

005B	invalid transit network selection	For further study. Treated as cause 005F.
005F	semantically incorrect message	This cause is used to report receipt of a message with semantically incorrect contents.

Protocol error (e.g., unknown message) class

No. (HEX)	Reason	Description
0060	invalid mandatory information	This cause indicates that the equipment sending this cause has received a message with a non-semantical mandatory IE(Information Element) error .
0061	message type non-existent or not implemented	This cause indicates that the equipment sending this cause has received a message with a message type it does not recognize either because this is a message not defined, or defined but not implemented by the equipment sending this cause.
0062	message type not compatible with protocol state	This cause indicates that the equipment sending this cause has received a message not compatible with the protocol state.
0063	information element non-existent or not implemented	This cause indicates that the equipment sending this cause has received a message which includes information elements not recognized because the information element identifier is not defined or it is defined but not implemented by the equipment sending the cause. However, the information element is not required to be present in the message in order for the equipment sending the cause to process the message.
0064	conditional IE error	This cause indicates that the equipment sending this cause has received a message with conditional IE(Information Element) errors.
0065	message not compatible with protocol state	This cause indicates that a message has been received which is incompatible with the protocol state or that a STATUS message has been received indicating an incompatible call state.
0066	recovery on timer expiry	This cause indicates that a procedure has been initiated by the expiry of a timer in association with 3GPP TS 24.008 error handling procedures.
006F	protocol error, unspecified	This cause is used to report a protocol error event only when no other cause in the protocol error class applies.

Interworking class

No. (HEX)	Reason	Description
007F	interworking, unspecified	This cause indicates that there has been interworking with a network which does not provide causes for actions it takes; thus, the precise cause for a message which is being sent cannot be ascertained.

F.2 Cause Code for PS communication

Causes related to nature of request

No. (HEX)	Reason	Description
0008	Operator Determined Barring	This cause code is used by the network to indicate that the requested service was rejected by the SGSN due to Operator Determined Barring.
0019	LLC or SNDCP failure (GSM only)	This cause code is used by the MS indicate that a PDP context is deactivated because of a LLC or SNDCP failure (e.g. if the SM receives a SNSM-STATUS.request message with cause “DM received “ or “ invalid XID response “, see)
001A	Insufficient resources	This cause code is used by the MS or by the network to indicate that a PDP context activation request, secondary PDP context activation request or PDP context modification request cannot be accepted due to insufficient resources.
001B	Unknown or missing access point name	This cause code is used by the network to indicate that the requested service was rejected by the external packet data network because the access point name was not included although required or if the access point name could not be resolved.

001C	Unknown PDP address or PDP type	This cause code is used by the network to indicate that the requested service was rejected by the external packet data network because the PDP address or type could not be recognized.
001D	User authentication failed	This cause code is used by the network to indicate that the requested service was rejected by the external packet data network due to a failed user authentication.
001E	Activation rejected by GGSN	This cause code is used by the network to indicate that the requested service was rejected by the GGSN.
001F	Activation rejected unspecified	This cause code is used by the network to indicate that the requested service was rejected due to unspecified reasons.
0020	Service option not supported	This cause code is used by the network when the MS requests a service which is not supported by the PLMN.
0021	Requested service option not subscribed	This cause is sent when the MS requests a service option for which it has no subscription.
0022	Service option temporarily out of order	This cause is sent when the MSC cannot service the request because of temporary outage of one or more functions required for supporting the service.
0023	NSAPI(Network Service Access Point Identifier) already used	This cause code may be used by a network to indicate that the NSAPI requested by the MS in the PDP context activation request is already used by another active PDP context of this MS. 3GPP Release 4 448 3GPP TS 24.008 V4.9.0 (2002-12) Never to be sent, but can be received from a R97/R98 network at PDP context activation.
0024	Regular PDP context deactivation	This cause code is used to indicate a regular MS or network initiated PDP context deactivation.
0025	QoS(Quality of Service) not accepted	This cause code is used by the MS if the new QoS cannot be accepted that were indicated by the network in the PDP Context Modification procedure.
0026	Network failure	This cause code is used by the network to indicate that the PDP context deactivation is caused by an error situation in the network.
0027	Reactivation requested	This cause code is used by the network to request a PDP context reactivation after a GGSN restart.
0028	Feature not supported	This cause code is used by the MS to indicate that the PDP context activation initiated by the network is not supported by the MS.
0029	semantic error in the TFT(Traffic Flow Template) operation	This cause code is used by the network to indicate that the there is a semantic error in the TFT operation included in a secondary PDP context activation request or an MS-initiated PDP context modification.
002A	syntactical error in the TFT operation	This cause code is used by the network to indicate that there is a syntactical error in the TFT operation included in a secondary PDP context activation request or an MS-initiated PDP context modification.
002B	unknown PDP context	This cause code is used by the network to indicate that the PDP context identified by the Linked TI IE the secondary PDP context activation request is not active.
002C	semantic errors in packet filter(s)	This cause code is used by the network to indicate that there is one or more semantic errors in packet filter(s) of the TFT included in a secondary PDP context activation request or an MS-initiated PDP context modification.
002D	syntactical error in packet filter(s)	This cause code is used by the network to indicate that there is one or more syntactical errors in packet filter(s) of the TFT included in a secondary PDP context activation request or an MS-initiated PDP context modification.
002E	PDP context without TFT already activated	This cause code is used by the network to indicate that the network has already activated a PDP context without TFT.

Causes related to invalid messages

No. (HEX)	Reason	Description
0051	Invalid transaction identifier value	This cause indicates that the equipment sending this cause has received a message with a transaction identifier which is not currently in use on the MS-network interface.

005F	Semantically incorrect message.	This cause is used to report receipt of a message with semantically incorrect contents.
0060	Invalid mandatory information	This cause indicates that the equipment sending this cause has received a message with a non-semantical mandatory IE error.
0061	Message type non-existent or not implemented	This cause indicates that the equipment sending this cause has received a message with a message type it does not recognize either because this is a message not defined, or defined but not implemented by the equipment sending this cause.
0062	Message not compatible with protocol state	This cause indicates that the equipment sending this cause has received a message not compatible with the protocol state.
0063	Information element non-existent or not implemented	This cause indicates that the equipment sending this cause has received a message which includes information elements not recognized because the information element identifier is not defined or it is defined but not implemented by the equipment sending the cause. However, the information element is not required to be present in the message in order for the equipment sending the cause to process the message.
0064	Conditional IE error	This cause indicates that the equipment sending this cause has received a message with conditional IE errors.
0065	Message not compatible with protocol state	This cause indicates that a message has been received which is incompatible with the protocol state or that a STATUS message has been received indicating an incompatible call state.
006F	Protocol error, unspecified	This cause is used to report a protocol error event only when no other cause in the protocol error class applies.

F.3 Cause code for Short Messaging Service

RP-cause definition SM-transfer

Following cause codes are used for mobile originating short message and mobile terminating short message.

No. (HEX)	Reason	Description
0051	Invalid short message transfer reference value	This cause indicates that the equipment sending this cause has received a message with a short message reference which is not currently in use on the MS-network interface.
005F	Invalid message, unspecified	This cause is used to report an invalid message event only when no other cause in the invalid message class applies.
0060	Invalid mandatory information	This cause indicates that the equipment sending this cause has received a message where a mandatory information element is missing and/or has a content error (the two cases are indistinguishable).
0061	Message type non-existent or not implemented	This cause indicates that the equipment sending this cause has received a message with a message type it does not recognize either because this is a message not defined or defined but not implemented by the equipment sending this cause.
0062	Message not compatible with short message protocol state	This cause indicates that the equipment sending this cause has received a message such that the procedures do not indicate that this is a permissible message to receive while in the short message transfer state.
0063	Information element non-existent or not implemented	This cause indicates that the equipment sending this cause has received a message which includes information elements not recognized because the information element identifier is not defined or it is defined but not implemented by the equipment sending the cause. However, the information element is not required to be present in the message in order for the equipment sending the cause to process the message.
006F	Protocol error, unspecified	This cause is used to report a protocol error event only when no other cause applies.

RP-cause definition mobile originating SM-transfer

Following cause codes are used for only mobile originating short message.

No. (HEX)	Reason	Description
0001	Unassigned (unallocated) number	This cause indicates that the destination requested by the Mobile Station cannot be reached because, although the number is in a valid format, it is not currently assigned (allocated).
0008	Operator determined barring	This cause indicates that the MS has tried to send a mobile originating short message when the MS's network operator or service provider has forbidden such transactions.
000A	Call barred	This cause indicates that the outgoing call barred service applies to the short message service for the called destination.
0015	Short message transfer rejected	This cause indicates that the equipment sending this cause does not wish to accept this short message, although it could have accepted the short message since the equipment sending this cause is neither busy nor incompatible.
001B	Destination out of service	This cause indicates that the destination indicated by the Mobile Station cannot be reached because the interface to the destination is not functioning correctly. The term "not functioning correctly" indicates that a sgnaling message was unable to be delivered to the remote user; e.g., a physical layer or data link layer failure at the remote user, user equipment off-line, etc.
001C	Unidentified subscriber	This cause indicates that the subscriber is not registered in the PLMN (i.e. IMSI not known).
001D	Facility rejected	This cause indicates that the facility requested by the Mobile Station is not supported by the PLMN.
001E	Unknown subscriber	This cause indicates that the subscriber is not registered in the HLR (i.e. IMSI or directory number is not allocated to a subscriber).
0026	Network out of order	This cause indicates that the network is not functioning correctly and that the condition is likely to last a relatively long period of time; e.g., immediately reattempting the short message transfer is not likely to be successful.
0029	Temporary failure	This cause indicates that the network is not functioning correctly and that the condition is not likely to last a long period of time; e.g., the Mobile Station may wish to try another short message transfer attempt almost immediately.
002A	Congestion	This cause indicates that the short message service cannot be serviced because of high traffic.
002F	Resources unavailable, unspecified	This cause is used to report a resource unavailable event only when no other cause applies.
0032	Requested facility not subscribed	This cause indicates that the requested short message service could not be provided by the network because the user has not completed the necessary administrative arrangements with its supporting networks.
0045	Requested facility not implemented	This cause indicates that the network is unable to provide the requested short message service.
007F	Interworking, unspecified	This cause indicates that there has been interworking with a network which does not provide causes for actions it takes; thus, the precise cause for a message which is being send cannot be ascertained.

RP-cause definition mobile terminating SM-transfer

Following cause code is used for mobile terminating short message.

No. (HEX)	Reason	Description
0016	Memory capacity exceeded	This cause indicates that the mobile station cannot store the incoming short message due to lack of storage capacity.

Appendix G Glossary

A

ADE ..... Above Deck Equipment

AOR ..... Atlantic Ocean Region

APN ..... Access Point Name

ASCII ..... American Standard Code for Information Interchange

*A standard alphanumeric character set based on 7-bit codes.

B

BDE ..... Below Deck Equipment

Bit ..... The basic unit of digital communications; may be either 1 or 0.

BPS (bit per second) ..... A unit of measurement for speed of data transfer or throughput.

Bulletin Board (in a TDM channel)

*A data packet transmitted in each frame of a TDM channel which contains information about the status of the Inmarsat B/M, mini-M and C network configurations and the current frame number, used by the MES as a timing reference.

Byte *One byte comprises eight bits and may represent either one alphanumeric character or numeric information.

C

CCIR ..... Consulting Committee of International Radio communications

CCITT ..... Consulting Committee of International Telegraph & Telephone

Character *One element of an alphanumeric character set. One character is equivalent to one byte or 8 bits.

COMM ..... Communication

CPU ..... Central Processing Unit

Command *The generic name for anything you tell a computer program to do.

CS ..... Circuit Switched

D

dB ..... Decibel

DC ..... Direct Current

DCN ..... Disconnection

DEC ..... Decoder Circuit

DEL ..... Delete

DEM ..... Demodulator Circuit

DHCP ..... Dynamic Host Configuration Protocol

DNS ..... Domain Name System

DP .....Distribution Partner

DTE ..... Data Terminal Equipment

E

EEPROM (Electrically Erasable and Programmable ROM)

*Read only Memory that is able to delete and rewrite electrically.

EIA ..... Electronic Industries Association

EIRP.....Effective Isotropically Radiated Power

*A measure of transmitted power.

EXT .....External

G

GMDSS (Global Maritime Distress and Safety Service)

*The Global Maritime Distress and Safety System: the Inmarsat-A/B and C systems are the only Inmarsat networks included in the GMDSS by the IMO International Maritime Organization.

GPRS.....General Packet Radio Service

GPS ..... Global Positioning System

*System which provides the geographic location of a vessel. This service uses American military satellites which have been made available for civilian use.

H

HPA .....High Power Amplifier

I

IMEI.....International Mobile Equipment Identity

IMN ..... Inmarsat Mobile Number

IMO ..... Internally Maritime Organization

IMSI .....International Mobile Subscriber Identity number

INFO ..... Information

INMARSAT .....International Maritime Satellite Organization

*The operator of global mobile satellite communications, part of the Inmarsat Ventures Ltd group of companies.

I/O.....Input/Output

IOR..... Indian Ocean Region

IP ..... Internet Protocol

ISDN.....Integrated Services Digital Network

ISO.....International Organization for Standardization

ITU .....International Telecommunication Union

K

Kbytes ..... 1024 bytes

L

LCD .....Liquid Crystal Display

LED ..... Light Emitting Diode

LMSS.....Land Mobile Satellite Service

LNA ..... Low Noise Amplifier

LT ..... Local Time

M

MES.....Mobile Earth Station

*The generic name used to describe an Inmarsat-approved terminal which is allowed to access the network, and applicable to both maritime and land mobile communications.

Message channel

*A channel assigned by the NCS for an MES to send a message through an SAS to its required destination.

Modem.....MODulator/DEModulator

*A device used to transmit digital data, by converting (modulating) a digital signal into an analogue form and re-converting (demodulating) the analogue signal into digital form at the receiving end.

MSISDN.....Mobile Subscriber ISDN

N

NCS Common Signaling Channel

*Also known as the NCS Common Channel. A TDM channel used by the NCS to transmit system information and message announcements to MESs.

NMEA .....National Marine Electronics Association

O

Ocean Region

*The coverage area of an Inmarsat satellite within which an MES may send and receive messages.

OSC .....Oscillator

P

Packet

*An envelope or block of data sent over a network; each packet contains addressing information as well as the data being sent.

PC .....Personal Computer

PDP.....Packet Data Protocol

PIN..... Personal Identification Number

POR.....Pacific Ocean Region

PPP ..... Point-to-Point-Protocol

Protocol

*A defined set of communications standards which lay down the parameters to which all users must abide. Protocols in general use are X.25 and X.400.

PS ..... Packet Switched

PSDN ..... Packet Switched Data Network

PSTN ..... Public Switched Telephone Network

PSU ..... Power Supply Unit

PUK ..... PIN Unblocking Key

R

RAM ..... Random Access Memory

REC ..... Receiving level

ROM ..... Read Only Memory

RX ..... Receive/Receiver

S

SAS ..... Satellite Access Station

SCA ..... Service Centre Address

SDM ..... System Definition Manual

SIM ..... Subscriber Identity Module

SMS ..... Short Message Service

SOLAS ..... Safety of Life at Sea

Space segment ..... Consists of the communications satellites operated by Inmarsat

Special access code

*A destination address code used in a ship-to-shore or shore-to-ship message to access a special service provided by a service provider. The two-digit codes are examples of special access codes.

SYNC ..... Synchronization

T

TDM ..... Time Division Multiplex

*The process by which multiple signals can share the same communication channel, each using a different time slot.

TDMA ..... Time Division Multiple Access

*The process by which MESs communicate with an SAS or NCS.

TX ..... Transmit/Transmitter

U

USB ..... Universal Serial Bus

UTC ..... Universal Coordinated Time

A term which, for practical purposes, has the same meaning as Greenwich Mean Time (GMT).

JRC NETWORK

If your JUE-250 has problems in operation, please contact the dealer, a JRC or JRC branch office.
For assistance in finding a Service Center, please access one of the following web sites.

JRC web site

JRC Japan:	www.jrc.co.jp
JRC Amsterdam:	www.jrcams.nl
JRC Seattle:	www.jrcamerica.com

2008.4.1
Ver.2.0

JRC Japan Radio Co., Ltd.

电子信息产品有害物资申明
日本无线株式会社

Declaration on toxic & hazardous substances or elements
of Electronic Information Products
Japan Radio Company Limited

有毒有害物质或元素的名称及含量
(Names & Content of toxic and hazardous substances or elements)

形式名(Type): JUE-250

名称(Name): INMARSAT FleetBroadband FB250
Maritime Satellite Communication Terminal

部件名称 (Part name)	有毒有害物质或元素 (Toxic and Hazardous Substances and Elements)					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr^{6+})	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
船上装置 (Above Deck Eqipment)	×	○	×	×	×	×
船内装置 (Below Deck Equipment)	×	○	×	×	×	×
外部设备(Peripherals) ・电话机(Telephone) ・数据终端(Data Terminal) ・打印机(Printer) ・选择(Options) ・电线类(Cables) ・手册(Documennts)	×	×	×	×	×	×

○:表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11306-2006 标准规定的限量要求以下。
(Indicates that this toxic, or hazardous substance contained in all of the homogeneous materials for this part is below the requirement in SJ/T11363-2006.)

×:表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。
(Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T 11363-2006.)

JRC Code No. : 7ZPSC0256

アスベストは使用しておりません
Not use the asbestos

CODE No.7ZPSC0256

For further information,contact:

JRC *Japan Radio Co., Ltd.*
Since 1915

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